OPERATION, MAINTENANCE, AND INSTALLATION MANUAL

FOR

RJ-88SC RJ-100SC
RJ-250SC RJ-250SC Ultra

Signature SERIES

Includes HT (Hydraulic Tailgate) Units and SL (Streamline, Liquid Removal) Units

RAMJET

SELF-CONTAINED COMPACTOR CONTAINER

MARATHON®
A DOVER COMPANY

Marathon Equipment Co. OMI Manual No. 0018 Rev. 1/11

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1 OPERATION

INTRODUCTION

THANK YOU FOR PURCHASING A MARATHON SELF-CONTAINED COMPACTOR/CONTAINER.

This compactor is designed to give you reliable and superior performance for many years to come. The purpose of this manual is to provide the owner and operator with the necessary information to properly and safely install, operate, and maintain your self contained compactor. Also included are sections regarding troubleshooting and service procedures. The manual is not intended as a primary training source, but as a reference guide for authorized, trained personnel. Each person involved in the operation, maintenance and installation of the machine must read and thoroughly understand the instructions in this manual and follow **ALL WARNINGS.**

The employer involved in the operation, maintenance, and installation of the compactor must also read and understand the most current version of the following applicable standards:

ANSI Standard No. Z245.2, "Stationary Compactors Safety Requirements"

A copy of this standard may be obtained from:

ANSI
25 West 43rd Street
New York, NY 10036

OSHA 29 CFR, Part 1910.147

"The control of hazardous energy (lockout/tagout)"

Any service or repair instructions contained in this manual should be performed by factory authorized personnel only. If you should need assistance with your baler, please contact your distributor.

When contacting your distributor, you will need to provide:

Compactor Serial Number:_____

Installation Date:_____

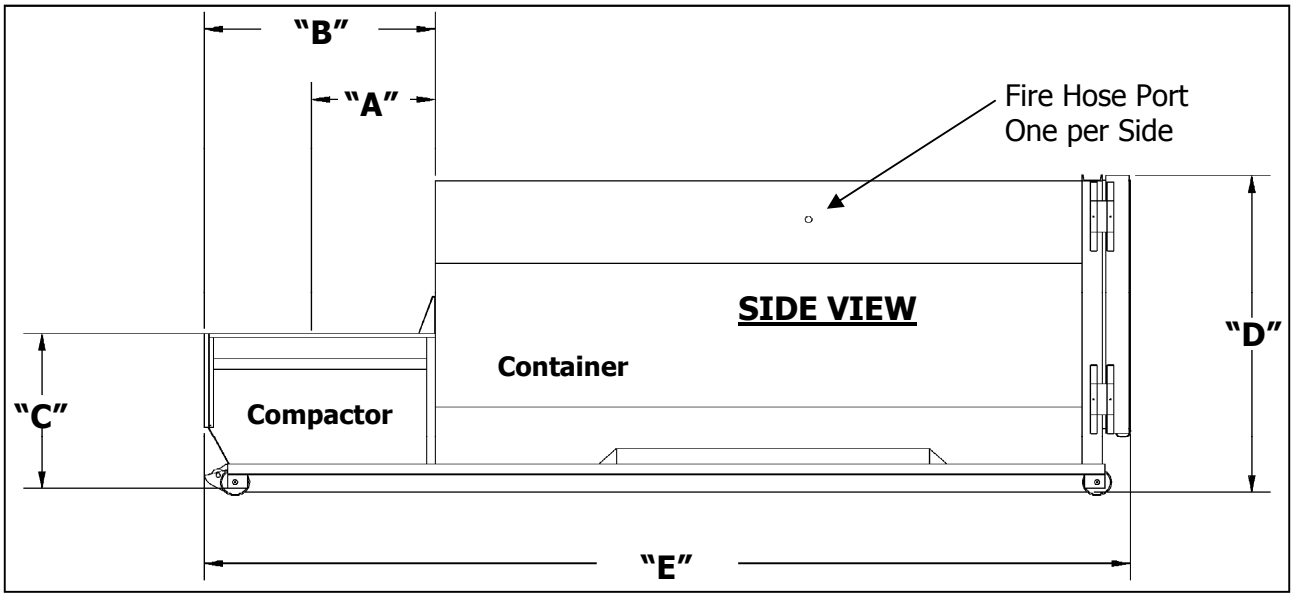
Electrical Schematic Number:_____

IF YOU HAVE ANY SAFETY CONCERNS WITH EQUIPMENT, OR NEED FURTHER INFORMATION, PLEASE CONTACT US AT:

Marathon Equipment Company
Attn: RamJet® Service Department
P.O. Box 1798
Vernon, Al 35592-1798

1-800-633-8974

SPECIFICATIONS



	88SC	100SC	250SC	250SC ULTRA	250SC HT
"A", Clear Top Opening (Length x Width) (inches)	30 1/2 x 48	35 x 60	41 1/2 x 60	41 1/2 x 60	41 1/2 x 60
"B", (inches)	70	76 1/8	67	67	67
"C", (inches)	43	48	48	48	48
"D", (max.) (inches)	95*	104*	104*	104*	102*
"E", (max.) (inches)	284 1/2*	290	299 1/2*	269*	277*
Charge Box Capacity (cubic yards)	1.0	1.50	1.70	1.70	1.70
WASTEC Rating	.70	1.32	1.31	1.31	1.31
Cycle Time (seconds)	44	37	33	33	33

* Determined by the size and capacity of the container.

1 OPERATION

PRE-OPERATION INSTRUCTIONS

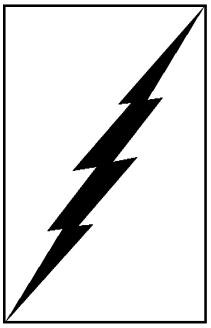
FEDERAL REGULATION PROHIBITS THE USE OF THIS EQUIPMENT BY ANYONE UNDER 18 YEARS OF AGE.

THE EMPLOYER SHOULD ALLOW ONLY AUTHORIZED AND TRAINED PERSONNEL TO OPERATE THIS COMPACTOR. This compactor is equipped with a key operated locking system. The key (s) should be in the possession of authorized personnel.

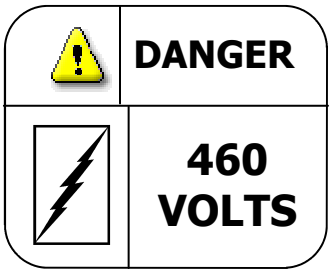
STAY CLEAR OF ALL INTERNAL PARTS OF THE SELF-CONTAINED COMPACTOR/CONTAINER DURING OPERATION. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH!

NEVER ENTER ANY PART OF THE COMPACTOR UNLESS THE DISCONNECT SWITCH HAS BEEN LOCKED-OUT AND TAGGED-OUT. See Lock-Out & Tag-Out instructions in the Maintenance section. Before starting the compactor, be sure no one is inside. Be certain that every-one is clear of all points of operation and pinch point areas before starting.

DO NOT REMOVE ACCESS COVERS EXCEPT FOR SERVICING. Only authorized service personnel should be allowed inside. All access doors on the compactor body should always be secured in place when the unit is operating. **See Lock-Out & Tag-Out instructions in the Maintenance section.**

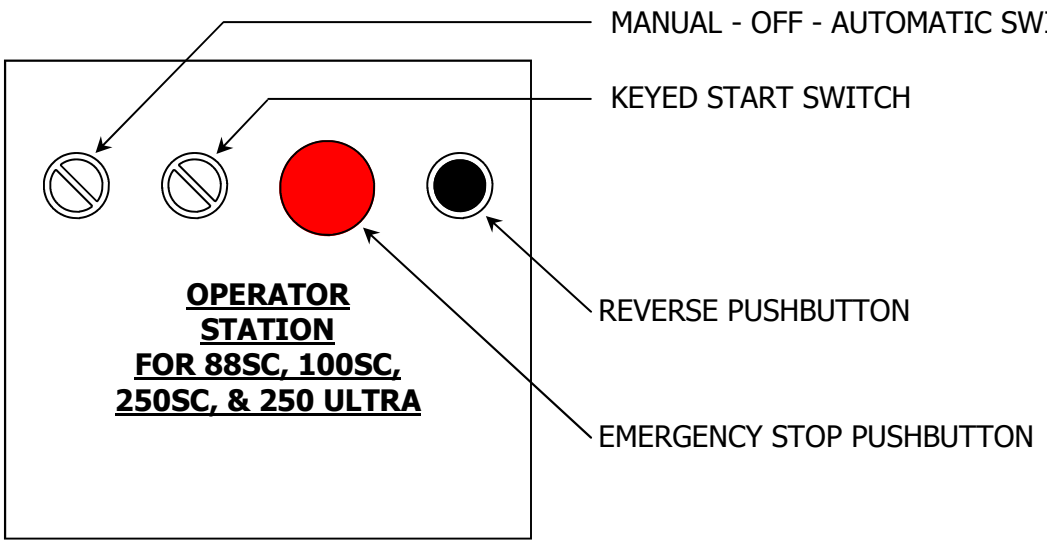


ONLY AUTHORIZED PERSONNEL SHOULD BE ALLOWED INSIDE THE MOTOR CONTROL PANEL. The motor control panel contains high voltage components. **See Lock -Out & Tag-Out Instructions in the Maintenance section.**



If the compactor is equipped with a security gate or doghouse with security door, **BE SURE THAT THE SECURITY GATE OR DOOR IS CLOSED BEFORE THE COMPACTOR IS STARTED.**

CONTROL PANEL


MANUAL - OFF - AUTOMATIC SWITCH*
KEYED START SWITCH
OPERATOR STATION FOR 88SC, 100SC, 250SC, & 250 ULTRA
REVERSE PUSHBUTTON
EMERGENCY STOP PUSHBUTTON

**Optional equipment - not included on standard models*

CONTROL DESCRIPTION

1. **MANUAL - OFF - AUTOMATIC SWITCH** - (*Optional Equipment - not included on standard models*) This switch controls the compactor operation mode, manual or automatic (automatic is photocell mode).

2. **KEYED START SWITCH** - This switch requires a key for operation. Insert the key and turn clockwise to the START position. Depress and hold the key for one to two seconds and release. The compactor will cycle the preset number of times determined by the Multi-Cycle Counter*, then stop. After use, turn the key to the counterclockwise position and remove the key.

3. **EMERGENCY STOP PUSHBUTTON** - When depressed, this pushbutton will stop all powered operation of the compactor.

4. **REVERSE PUSHBUTTON** - This pushbutton will reverse the compaction ram when depressed. The motor must be running for the REVERSE button to operate. See the MANUAL OVERRIDE INSTRUCTIONS on the next page for details of the operation.

*For more information on the Multi-Cycle Counter see page 25.

OPERATING INSTRUCTIONS - STANDARD MODELS

1. First, place the material to be discarded into the compactor. **Note**: If you are loading the compactor through a door or gate, close it before starting the compactor. Refer to "Optional Loading Configurations" on page 13 to determine how your compactor is configure.
2. Insert the key into the key switch. Turn it clockwise and depress for 1 to 2 seconds and release. The unit will cycle the preset number of times determined by the Multi-Cycle Counter*, then stop.
3. Repeat, if necessary, after the compactor has stopped.
4. When you have finished using the compactor, remove the key from the key switch.

*For more information on the Multi-Cycle Counter see page 25.

IN CASE OF EMERGENCY:
Push the large red button to STOP

MANUAL OVERRIDE INSTRUCTIONS (RAM STOP REAR ONLY)

If the ram is stopped in any position:

- To move the ram forward, turn the key switch clockwise and depress.
- To move the ram rearward, hold the reverse button down, turn and depress the key switch, release the key switch, then release the reverse button.

While the ram is moving:

- To reverse the ram while it is moving forward, press the reverse button.
- To cause the ram to move forward while it is moving rearward, depress the key switch.

NOTE: Refer to Optional Controls for Manual Override on Ram Stop Forward Machines.

OPERATING INSTRUCTIONS - Models with Photoelectric Cycle Control

NOTE: This compactor features an ANSI Z245.21 - 5.12.1 compliant start-up alarm that is both audible and visible during the activation of the AUTOMATIC mode.

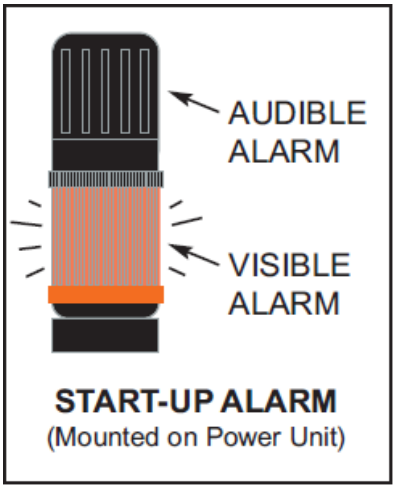
OPERATING INSTRUCTIONS (AUTOMATIC MODE)

1. Place the material to be discarded into the compactor.

   NOTE: If you are loading the compactor through a door or gate, close it before starting the compactor.

2. Insert the first key into the **"MANUAL - OFF - AUTOMATIC"** key switch and turn to the **"AUTOMATIC"** position.
3. Insert the second key into the **"START"** switch and turn to the right.
4. Depress the key in the **"START"** switch and hold it continuously for 20 seconds.

   - Both the audible and visual start-up alarms will energize for 5 seconds.
   - After 5 seconds the audible alarm will stop, but the visual alarm will continue for an additional 15 seconds (for a total of 20 seconds).
   - After 20 seconds, the motor will start and the ram will extend, then retract (one complete cycle).
   - The light will continue to flash until the unit is manually turned off, automatically shuts down, or is switched to manual mode.
   - If 15 minutes elapse without a cycle being initiated by the photocell or without operation of any of the pushbuttons, the power unit will shut down.



START-UP ALARM
(Mounted on Power Unit)

WARNING: In AUTOMATIC mode, the power unit will restart the ram automatically anytime the photocell detects **ANY OBJECT** in the charge box.

OPTIONAL CONTROLS

1. **SUSTAINED MANUAL PRESSURE CONTROL BUTTON** (Hold-To-Run, Release-To-Stop) This option requires the compactor operator to remain at the push button station while the compactor is in use. Actuation requires depressing the "Hold-To-Run" and "Start" buttons. After the unit has started, the "Start" button is released. If the "Hold-To-Run" button is released, the unit will stop instantly.

2. **ADVANCE WARNING / CONTAINER FULL LIGHT** - When the light starts flashing (ADVANCE WARNING), then 200 PSI is left before the pressure switch is activated to shut the unit off and container is full (unit will run when light flashes). When the light stays on continuously (CONTAINER FULL), the container is full and is ready to be emptied before its next use. To deactivate the light, depress the illuminated emergency stop button (The unit will not run while the light is continuously on).

3. **RAM STOP FORWARD** - When a machine with this option has been stopped, the ram automatically begins to move rearward when restarted. To move the ram forward (when it is stopped), hold the **FORWARD** button down, turn the key switch clockwise, depress and release the key switch, then release the **FORWARD** button. To reverse the ram while it is moving forward, depress the key switch. To cause the ram to move forward while it is moving rearward, press the **FORWARD** button.

4. **ACCESS INTERLOCK** - This is optional with units equipped with doors, chutes, or access gates. It prevents the unit from operating while a door or gate is open.

5. **PHOTOELECTRIC CYCLE CONTROL** - (Photocell) - Consists of a LED light source and a reflector. It can be mounted on a hopper or chute. Two holes, located so as to prevent any hazard, are located in opposite walls of the chute. When the light beam is blocked for 15 seconds, the compactor is activated and will continue to run until the obstruction has been cleared.

6. **AUTOMATIC SHUTDOWN** - Used with the photoelectric cycle control. If a blockage in the charge chamber causes the compactor to continue cycling, the timer will shut the compactor down after the preset time has passed. To deactivate the timer, the illuminated pushbutton is pressed after clearing the blockage.

7. **THERMOSTATICALLY CONTROLLED OIL HEATER** - This option is installed in the oil reservoir. The thermostat is adjustable so the heater will heat the oil when the oil temperature goes below a specified level. It is recommended to set the thermostat between 70° F - 100° F.

DECALS

WARNING DECAL REQUIREMENTS

When your compactor leaves the factory, several WARNING DECALS are installed for your protection. These labels are subject to wear and abuse due to the nature of operation. The FOLLOWING DECALS MUST BE MAINTAINED. Additional decals may be purchased through your distributor or from Marathon Equipment Company by either calling the parts department at **1-800-633-8974** or going to **www.parts1stop.com** to place an order online.

When ordering replacement decals, match the reference numbers in the chart below with the drawing **on the next page** (and pages 13 & 14 for optional equipment or HT models) or look for the part number in the lower right hand corner of the decal.

Part #	Ref. #	Description	Quantity
05-0325		RIVETS, 1/8 X 1/2 ALUM (to go with 06-0364)	4
06-0038	1	WARNING DO NOT REMOVE ACCESS COVER	2
06-0039	2	DANGER DO NOT ENTER	3****
06-0067	3	D/N REMOVE CONT TIL REAR...	2
06-0072	4	QUICK CLEAN TANK	1
06-0093	5	FIRE HOSE PORT	2
06-0094	6	NOTICE WIPE OFF SEAL AFTER....	2
06-0121	7	NOTICE FEDERAL REGULATION...NO <18 y.o.	2
06-0124	8	CYCON	2
06-0249	9	DANGER HAZARDOUS VOLTAGE	2
06-0364	10	COMPACTOR SERIAL NUMBER	2
06-1839	11	AMERICAN FLAG	3
06-0057	12	WARNING STAND CLEAR OF COMPACTOR	3
06-0002	13	RAM-JET	4
06-3123	14	CONFINED SPACE	3****
06-3231	15*	ULTRA DECAL	2
06-0040	16**	CAUTION: KEEP OUT	****
06-0052	17**	CAUTION: GATE MUST BE CLOSED....	****
06-0104	18***	HT OPERATING INSTRUCTIONS	1
06-0105	19***	DANGER: STAND CLEAR OF TAILGATE...	3

*ONLY ON "ULTRA" MODELS.

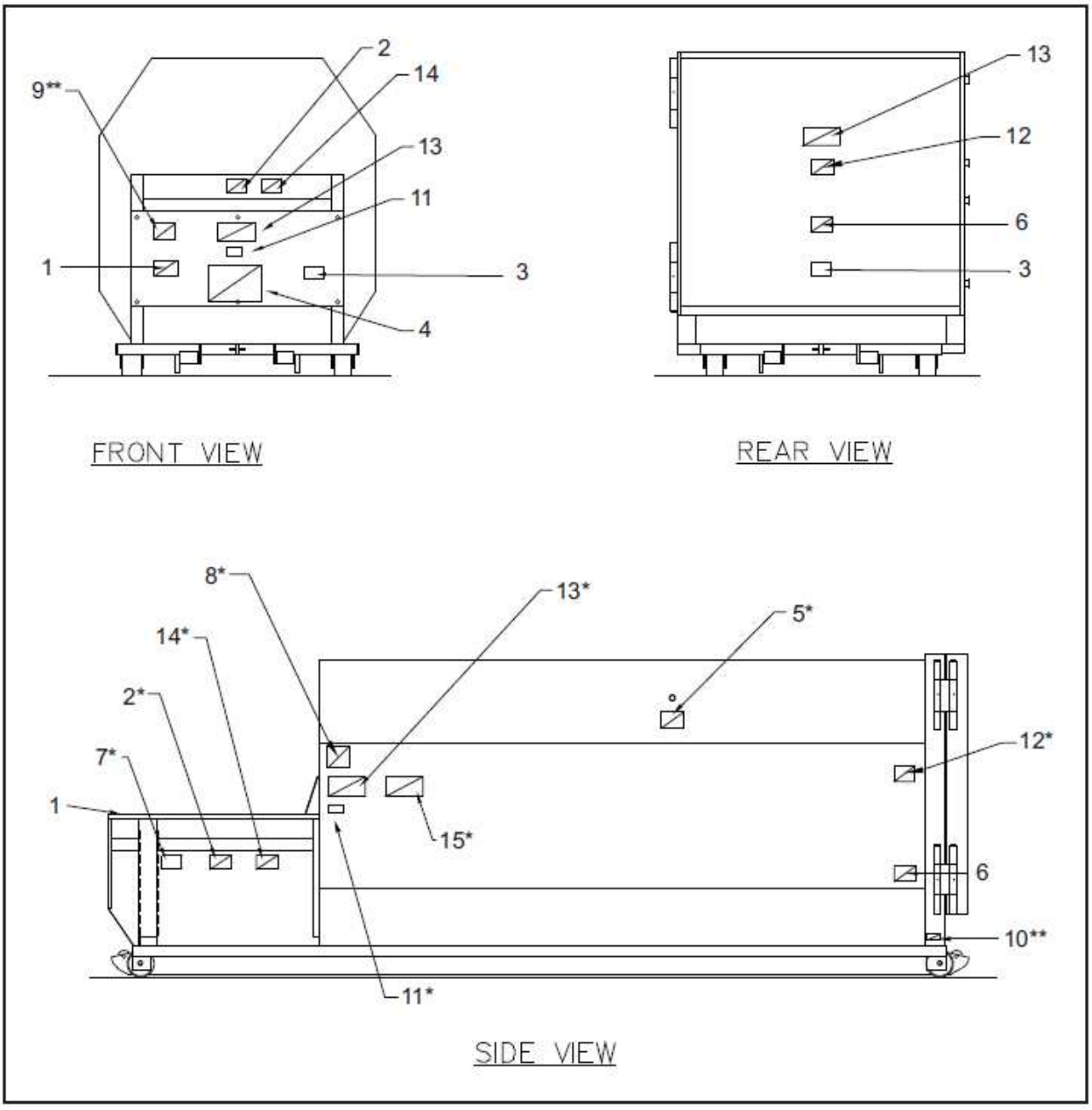
**ONLY ON OPTIONAL EQUIPMENT (ACCESS GATES, HOPPERS, &/OR DOGHOUSE.

***ONLY ON HT UNITS (HYDRAULIC TAILGATE).

****QUANTITY VARIES DEPENDING ON OPTIONAL EQUIPMENT, NOTE QUANTITY ON MACHINE.

DECALS PLACEMENT

Match reference numbers to chart on previous page. See next page for decal images.



* INSTALLED ON BOTH SIDES OF COMPACTOR IN SAME LOCATION

**ALSO INSTALLED ON REMOTE POWER PACK

DECAL IMAGES

06-0038

WARNING
CRUSHING/SHEARING HAZARD!
KEEP OUT!
Failure to comply could result in death or serious injury.
ADVERTENCIA
¡PELIGRO DE APLASTAMIENTO/CIZALLAMIENTO!
¡PROHIBIDA LA ENTRADA!
Si no se cumple con esta disposición, se puede causar la muerte o lesiones graves.

06-0057

DANGER
CRUSHING/SHEARING HAZARD!
DO NOT ENTER!
Failure to comply will result in death or serious injury.
PELIGRO
¡PELIGRO DE APLASTAMIENTO/CIZALLAMIENTO!
¡NO ENTRAR!
Si no se cumple con esta disposición, se causará la muerte o lesiones graves.

06-0249

DANGER
PELIGRO
HIGH VOLTAGE HAZARD!
Lock out and tag out power before performing any maintenance, repair, adjustment, or before entering machine.
¡PELIGRO DE ALTO VOLTAJE!
Bloquear y rotular la energía eléctrica antes de hacer trabajos de mantenimiento, reparaciones, ajustes o de entrar a la máquina.
CRUSHING/SHEARING HAZARD!
Keep clear.
¡PELIGRO DE APLASTAMIENTO/CIZALLAMIENTO!
Mantenerse alejado.
PRESSURIZED FLUID HAZARD!
Relieve pressure before performing maintenance or repairs.
¡PELIGRO DE FLUIDO PRESURIZADO!
Alivie la presión antes de efectuar trabajos de mantenimiento o reparación.
Failure to comply will result in death or serious injury.
Si no se cumple con esta disposición, se causará la muerte o lesiones graves.

06-0002

06-0121

CAUTION
Federal regulation prohibits operation of equipment by persons under 18 years of age.
ATENCION
Los reglamentos federales prohíben el manejo del equipo a personas menores de 18 años de edad.

06-0072

06-3123

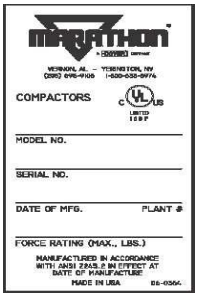
DANGER
CONFINED SPACE!
Follow lockout and tagout procedures before entering.
Failure to comply will result in death or serious injury.
PELIGRO
¡ESPACIOS ESTRECHOS!
Seguir los procedimientos de bloqueo y rotulado antes de entrar.
Si no se cumple con esta disposición, se causará la muerte o lesiones graves.

06-0067

CAUTION
Do not remove container until rear stop is installed.
Failure to comply may cause equipment damage.
PRECAUCIÓN
No quite el contenedor si no esta instalado el tope posterior.
Si no se cumple con esta disposición, se puede dañar el equipo.

06-0124

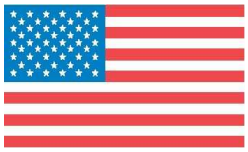
06-0364



06-0094

CAUTION
Wipe off seal after dumping.
Failure to comply may cause equipment damage.
ATENCION
Limpiar el sello después del vaciado.
Si no se cumple con esta disposición, se puede dañar el equipo.

06-1836



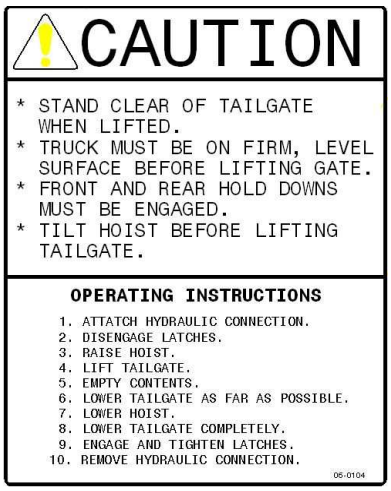
06-0057

WARNING
CRUSH HAZARD!
Stand clear when tailgate or container is in motion and during loading and unloading.
Failure to do so could result in death or serious injury.
ADVERTENCIA
¡RIESGO DE APLASTAMIENTO!
Mantenerse alejado cuando la compuerta trasera o el contenedor está en movimiento y durante las operaciones de carga y descarga.
Si no se cumple con esta disposición, se puede causar la muerte o lesiones graves.

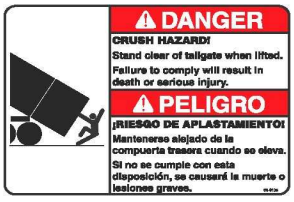
06-3231

06-0093

06-0104


CAUTION
* STAND CLEAR OF TAILGATE WHEN LIFTED.
* TRUCK MUST BE ON FIRM, LEVEL SURFACE BEFORE LIFTING GATE.
* FRONT AND REAR HOLD DOWNS MUST BE ENGAGED.
* TILT HOIST BEFORE LIFTING TAILGATE.
OPERATING INSTRUCTIONS
1. ATTATCH HYDRAULIC CONNECTION.
2. DISENGAGE LATCHES.
3. RAISE HOIST.
4. LIFT TAILGATE.
5. EMPTY CONTENTS.
6. LOWER TAILGATE AS FAR AS POSSIBLE.
7. LOWER HOIST.
8. LOWER TAILGATE COMPLETELY.
9. ENGAGE AND TIGHTEN LATCHES.
10. REMOVE HYDRAULIC CONNECTION.
06-0104

06-0105

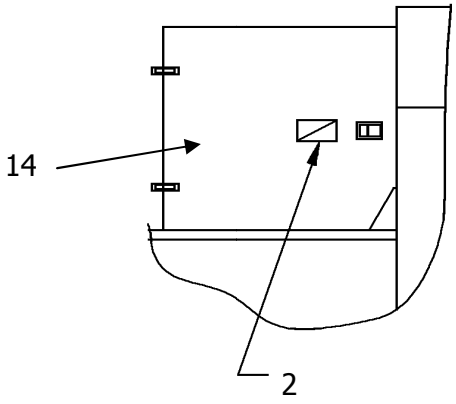

DANGER
CRUSH HAZARD!
Stand clear of tailgate when lifted.
Failure to comply will result in death or serious injury.
PELIGRO
¡RIESGO DE APLASTAMIENTO!
Mantenerse alejado de la compuerta trasera cuando se eleva.
Si no se cumple con esta disposición, se causará la muerte o lesiones graves.

06-0052

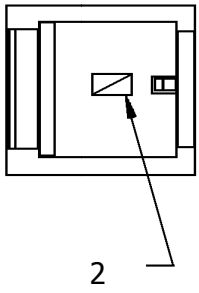
WARNING
CRUSHING/SHEARING HAZARD!
Gate must be closed before operating equipment.
Failure to do so could result in death or serious injury.
ADVERTENCIA
¡PELIGRO DE APLASTAMIENTO/CIZALLAMIENTO!
Cerrar la compuerta antes de hacer funcionar el equipo.
Si no se cumple con esta disposición, se puede causar la muerte o lesiones graves.

DECALS - Optional Loading Configurations

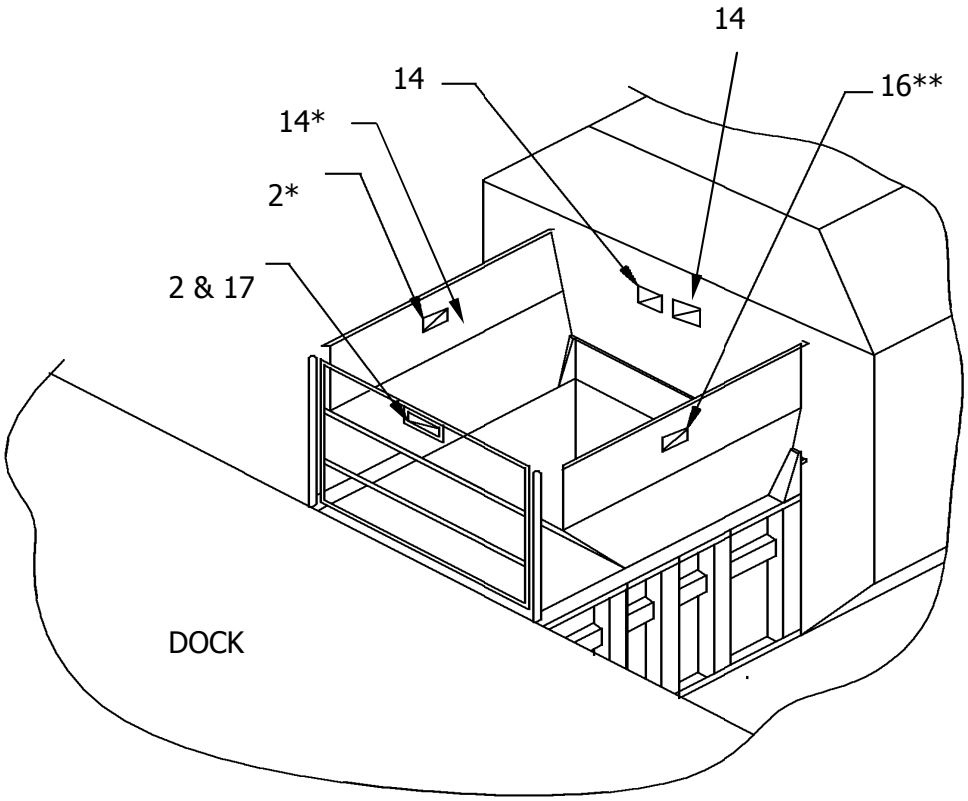
Match reference numbers to “Decals” on page 10 when ordering replacement decals.



DOGHOUSE



THRU-THE WALL SECURITY CHUTE



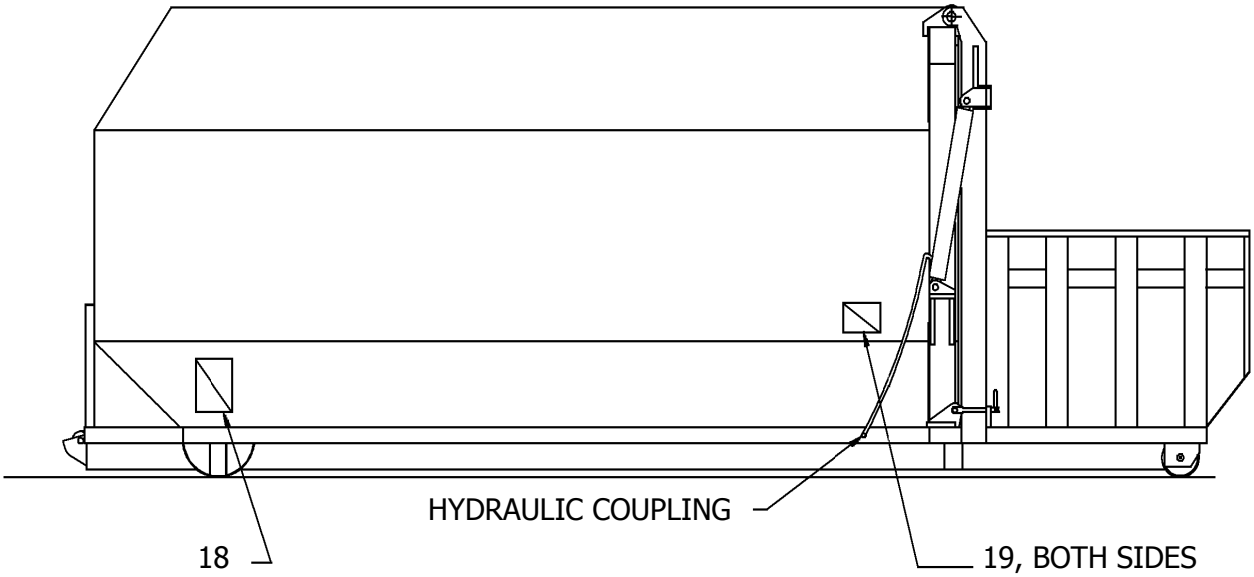
ACCESS GATE & HOPPER

* Located on each inside wall

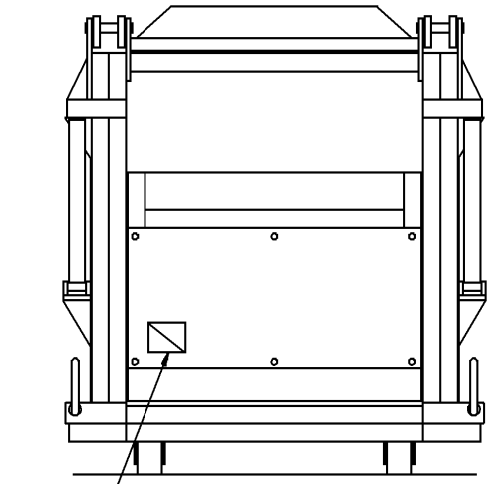
** Located on each outside wall

Decals - Additional For Hydraulic Tailgate (HT) Units

In addition to the decals and their placement specified on the previous pages, the self contained units with the hydraulic tailgate option require the following decals located as shown below.



SIDE VIEW



REAR VIEW

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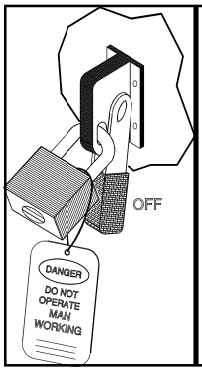
LOCK-OUT & TAG-OUT INSTRUCTIONS

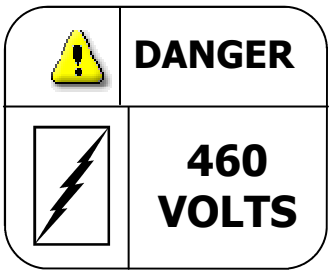


FOREWORD: **Before entering any part of the compactor, be sure that all sources of energy have been shut off, all potential hazards have been eliminated, and the compactor is locked-out and tagged-out in accordance with OSHA and ANSI requirements.** If the ram is pressing against a load, move the ram rearward before shutting the compactor down. The specific lock-out and tag-out instructions may vary from company to company (i.e. multiple locks may be required, or other machinery may need to be locked-out and tagged-out). The following instructions are provided as minimum guidelines.

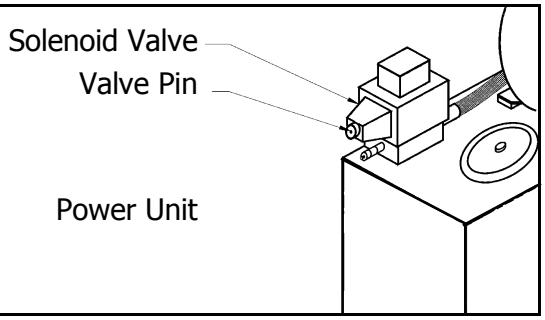
INSTRUCTIONS

1. **Move the main disconnect lever to the OFF position.**
2. **Padlock the disconnect lever with a keyed padlock and take the key with you.**
3. **Along with the padlock, place an appropriate, highly visible, warning tag on the disconnect lever. The tag should provide a warning such as:**
   "Danger: Do not operate equipment. Person working on equipment." or
   "Warning: Do not energize without the permission of _____."
4. **After locking and tagging the compactor, try to start and operate the compactor (as outlined in the Operating Instructions) to make sure the lock-out and tag-out is effective. If the lock-out and tag-out is effective, remove the key from the key switch and take it with you.**

ELECTRICAL: The motor control panel contains high voltage components. Only authorized service personnel should be allowed inside the panel. Authorized service personnel should be allowed inside the panel only after the compactor has been locked-out and tagged-out.



HYDRAULIC: Stored hydraulic energy must be removed from the compactor hydraulic circuit for complete lock-out and tag-out. Make sure that this energy has been relieved by manually depressing the solenoid valve pin located in the center of each coil end of the directional control valve.



2 MAINTENANCE

PERIODIC MAINTENANCE

WARNING: RAM SPEED ACCELERATES AS RAM RETRACTS. NEVER ENTER ANY PART OF THE SELF-CONTAINED COMPACTOR/CONTAINER UNTIL THE UNIT HAS BEEN LOCKED-OUT AND TAGGED-OUT.

MONTHLY

Check external hoses for chafing, rubbing, or other deterioration and damage.

Check for any obvious unsafe conditions in the compactor area.

Check oil level in hydraulic reservoir. Level should be 3/4 of sight gauge (ram fully retracted).

Clean out or wash out debris from behind compactor ram.

Lubricate the ram guidance tracks using the grease fittings on the compactor side (For guided ram machines only), and check guide shoes for wear.

THREE MONTHS

1. Check functional operation of controls and options (stop button, timers, lights, etc.).
2. Check hydraulic cylinder, internal hoses, and connections for leakage; check hoses for chafing and wear.
3. Lubricate the container door hinges.

ANNUALLY

Lubricate electric motor bearings annually per the manufacturers instructions.

FILTER MAINTENANCE

1. The hydraulic filter should be cleaned at regular yearly intervals.
2. The filter may be removed from the unit by disconnecting the union on the suction side of the pump, removing the four bolts retaining the cover plate, and lifting the filter from the reservoir.
3. Care should be exercised in cleaning the filter to ensure that the element is not torn. Clean the element with a soft brush and standard industrial solvent.
4. Replace the filter after cleaning and tighten the union securely. Pump noise and a "crackle" sound is most often caused by air entering the pump suction line. Tightening the suction fittings will usually eliminate the problem.

RECOMMENDED OILS FOR THE HYDRAULIC SYSTEM

1. Union - Unax-46, Unax-AW46
2. Gulf - Harmony 47, Harmony 48-AW
3. Exxon - Teresstic 46, Nuto 46
4. Texaco - Rando 46
5. Chevron - AW 46
6. Shell -Turbo 46, Tellus 46
7. Quaker State - Dextron ll (ATF)
8. Citgo - Pacemaker 46, Tellus - AW46
9. Amoco - (Rycon)

PROCEDURES

PRESSURE SETTING INSTRUCTIONS

When the hydraulic cylinders used in the RamJet Self-Contained compactor are fully extended or retracted, they bypass internally. This makes it impossible for the hydraulic system to reach relief pressure. Follow the recommendations below for proper pressure setting.

1. Disconnect and lock-out power per the procedure on page 16.
2. Using the quick disconnects, disconnect the hydraulic hoses from the compactor.
3. Remove the 1/4" plug from the check valve and install a 0-3000 psi pressure gauge.
4. Loosen the lock nut on the relief valve and turn the adjustment screw several turns counterclockwise.
5. Remove the lock-out provisions and turn the disconnect to the ON position. Start the power unit using the OPERATING INSTRUCTIONS on page 7 and 8.
6. With the hoses disconnected, the power unit will build pressure. Adjust the relief pressure up by turning the relief adjustment screw clockwise. Adjust the relief valve to the desired pressure setting and tighten the lock nut. See chart below.
7. Press the EMERGENCY STOP button to stop the power unit, and relieve the stored hydraulic energy as described on page 16.
8. Disconnect and lock-out power as described in Step 1.
9. Remove the pressure gauge and replace the 1/4" plug in the check valve.
10. Reconnect the hydraulic hoses, and remove the lock-out provisions.

PRESSURE SETTINGS

MODEL NO.	HP	GPM	RELIEF VALVE SETTING	RES. CAP.	BORE	ROD	STROKE
RJ-88SC	5	6	1700	15	4	2 1/2	25
RJ-100SC	10	10	1850	20	5	2 1/2	42
RJ-250SC	10	10	1850	20	4	2 1/2	31 5/8
RJ-250 Ultra	10	10	1850	20	4	2 1/2	31 5/8

On units with the Advance Warning Light, set pressure 200 PSI below pressure switch setting.
Includes HT units & SL units.

2 MAINTENANCE

PRINCIPLES OF OPERATION

STANDARD SYSTEM OPERATING CHARACTERISTICS, 5 hp & 10 hp

The system uses special cylinders to move the ram and two timers to control the operation of the ram. When the hydraulic cylinders used in the self-contained compactors are fully extended or retracted, they bypass internally. This makes it impossible for the hydraulic system to reach relief pressure. The sequence of operation for this system is as follows:

Upon startup, a contact is made that energizes the motor starter, starting the electric motor and at the same time energizing T1 timer coil. When T1 is energized, the valve solenoid shifts the valve so that the hydraulic oil is directed to extend the cylinder which extends the ram. When T1 timer times out, the contacts reverse causing T2 timer to energize and the solenoid to shift the valve into the reverse position. In this position, the valve directs the hydraulic oil into the front end of the cylinder causing the cylinder to retract, therefore causing the ram to retract. When T2 timer times out, the motor starter contact is opened causing the motor starter to shut down, therefore causing the motor/power unit to shut down.

CYLINDER REMOVAL INSTRUCTIONS

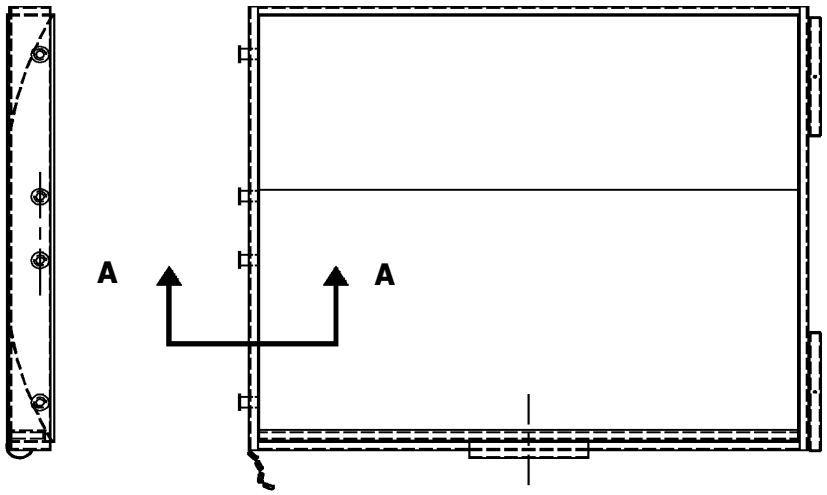
1. Disconnect and lock-out power per the procedure on page 16.
2. Remove access covers from compactor.
2. Remove hoses (4 for 88SC & 250SC, 2 for 100SC & 250 Ultra).
3. Remove cylinder pins.
4. Remove cylinders (2 for 88SC, 250SC, & 250 Ultra, 1 for 100SC).
5. To install the cylinders, reverse the above steps.

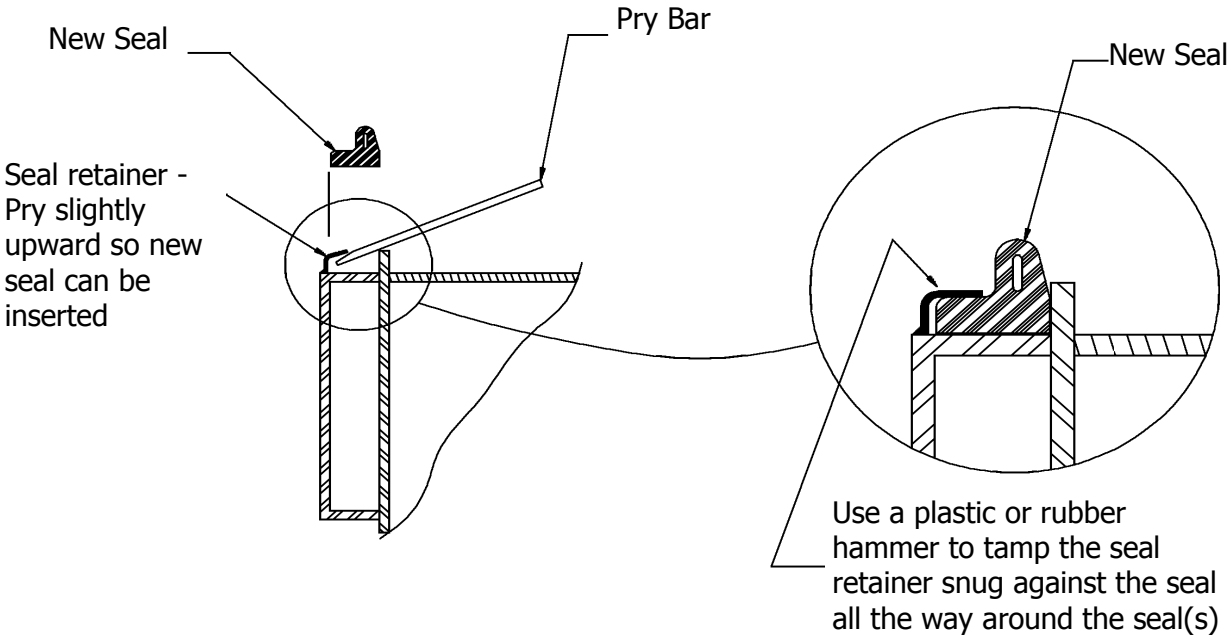
TAILGATE SEAL REPLACEMENT

When the door/tailgate seal becomes damaged or worn, replace the seal.

WARNING: For units with hydraulic tailgates, before performing any inspection or maintenance on the seal, support the raised tailgate with a crane, forklift, or other positive maintenance prop..

- When removing the old seals (top & bottom) mark the position of the seal joints.
- Pry the seal retainer up slightly to allow removal of the old seals.
- When installing the new seals, join the seals at the same position.




New Seal
Pry Bar
New Seal
Seal retainer - Pry slightly upward so new seal can be inserted
Use a plastic or rubber hammer to tamp the seal retainer snug against the seal all the way around the seal(s)

CHARTS

FUSES AND CIRCUIT BREAKERS

MOTOR SIZE	VAC	FULL LOAD AMPS	DUAL ELEMENT FUSE MAX.SIZE	CIRCUIT BREAKER MAX. SIZE	SERVICE DISCONNECT AMPS
5 HP, 1 PH	208	22.0	50	80	60
	230	20.8	45	70	60
5 HP, 3 PH	208	13.8	30	40	30
	230	13.4	25	40	30
	460	6.7	15	20	30
	575	5.4	10	15	30
10 HP, 1 PH	208	43.0	100	125	100
	230	39.0	90	125	100
10 HP, 3 PH	208	27.5	50	80	60
	230	25.6	50	70	60
	460	12.8	25	35	30
	575	11.4	20	30	30

CHARTS

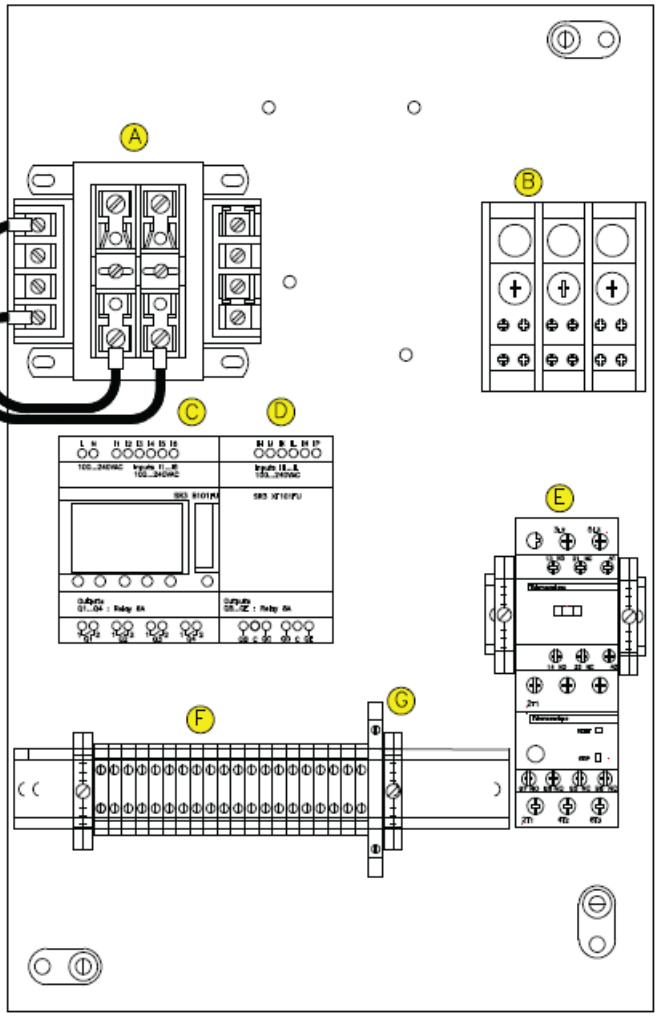
WIRE SIZE	THW Copper 75°C (165°F)			
MOTOR SIZE	VOLTAGE	UP TO 100'	UP TO 200'	UP TO 300'
5 HP, 1 PH	208	8	6	4
	230	8	6	4
5 HP, 3 PH	208	10	6	4
	230	10	8	6
	460	12	12	10
	575	12	12	12
10 HP, 1 PH	208	4	1	1/0
	230	4	2	1/0
10 HP, 3 PH	208	6	4	2
	230	8	4	3
	460	12	10	8
	575	12	12	10

MOTOR STARTERS AND HEATER ELEMENTS				
MOTOR SIZE	VOLTAGE	STARTER SIZE	ALLEN BRADLEY	JOSLYN CLARK
5 HP, 1 PH	208	2	W-61	2452
	230	2	W-60	2451
5 HP, 3 PH	208	1	W-55	2447
	230	1	W-55	2446
	460	1	W-46	2438
	575	1	W-44	2435
10 HP, 1 PH	208	3	W-66	N/A
	230	3	W-65	N/A
10 HP, 3 PH	208	2	W-63	2454
	230	2	W-62	2454
	460	1	W-55	2446
	575	1	W-53	2445

TYPICAL PANEL BOX CONFIGURATION

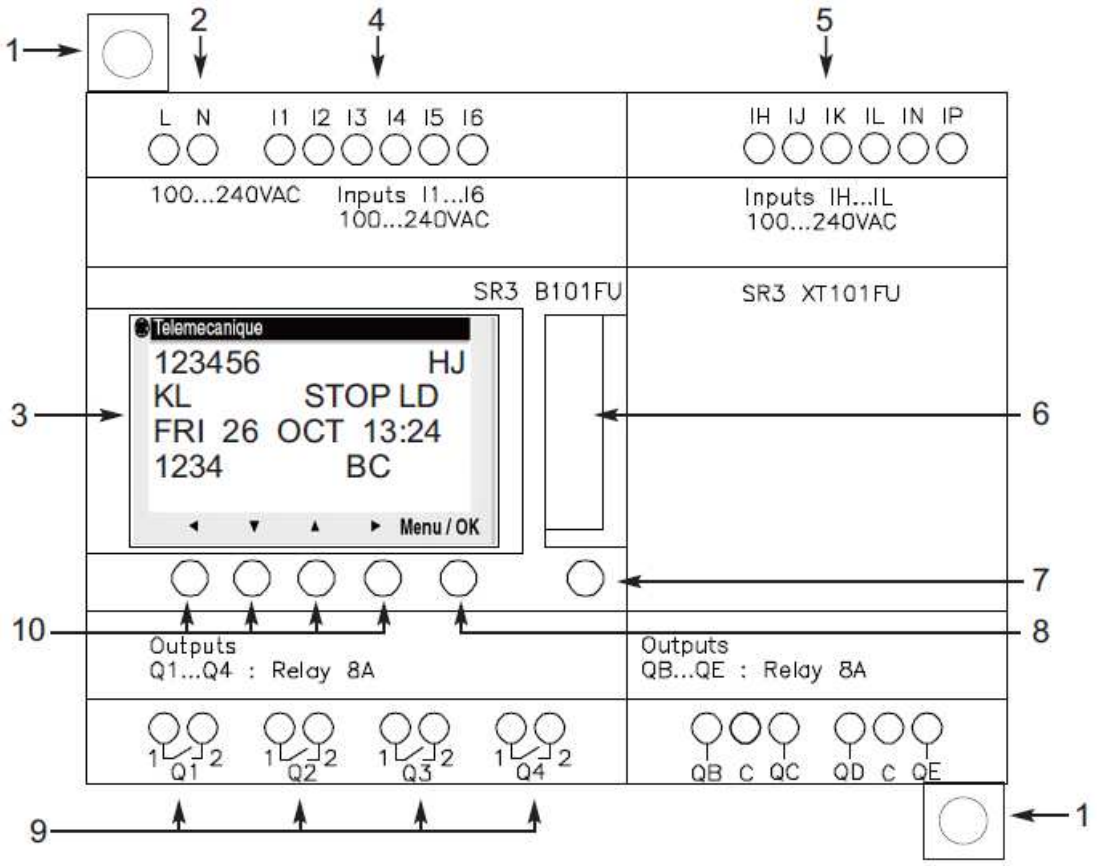
The diagram at right represents a typical panel box configuration for the self-contained compactors. The panel box on your compactor may differ depending on the model and/or optional equipment/ controls. Refer to the chart below to identify components. To order replacement parts, please call our Parts Department at **1-800-633- 8974** or order online by logging onto **www.parts1stop.com**.

For information on programming the PLC, refer to the following 2 pages.



Reference	Part #	Description
A	03-0288	Control Transformer-Micron 150VA, 208/230/460-120 VAC
B	03-0959	Distribution Block
C	03-4729	Zelio Smart Relay - PLC
D	03-4852	Zelio Expansion Module - 6 Inputs, 4 Outputs **OR**
D	03-5483	Zelio Expansion Module - 8 Inputs, 6 Outputs
E	03-4748	IEC Motor Starter
E	03-4753	Overload for 460V **OR**
E	03-4763	Overload for 230V
F	03-4437	IEC Finger-Safe Terminal Blocks
G	Call w/SN	Fuse

PLC MAINTENANCE - LAYOUT & DESCRIPTION



Reference	Description
1	Retractable mounting feet
2	Screw terminal block for the power supply
3	LCD, 4 lines, 18 characters
4	Screw terminal block for inputs
5	Screw terminal block for discrete input
6	Connector for backup memory or PC connection cable
7	Shift key
8	Selection and validation key (Menu / Ok)
9	Relay output screw terminal block
10	Arrow keys

PLC MAINTENANCE - continued

MULTICYCLE COUNTER SELECTION

STEPS	DIRECTIONS
1	Press the Menu Button
2	Press Arrow Down Button to select PARAMETER (flashing)
3	Press Menu/Ok Button
4	Press Arrow Up Button until CC2 (flashing)
5	Press Arrow Left Button until P=0001 is (flashing)
6	Press Arrow Down or Arrow Down to select cycle count*
7	Press Menu/Ok Button
8	Press Menu/Ok Button with YES to Confirm Changes
9	Press the Menu Button

Ram Stop Rear or Ram Stop Forward Selection

STEPS	DIRECTIONS
1	Press & Hold the Arrow Left Button to Change and display the current ram stop position

NOTE: Repeating this process switches the current postion to ram stop forward or ram stop reverse.

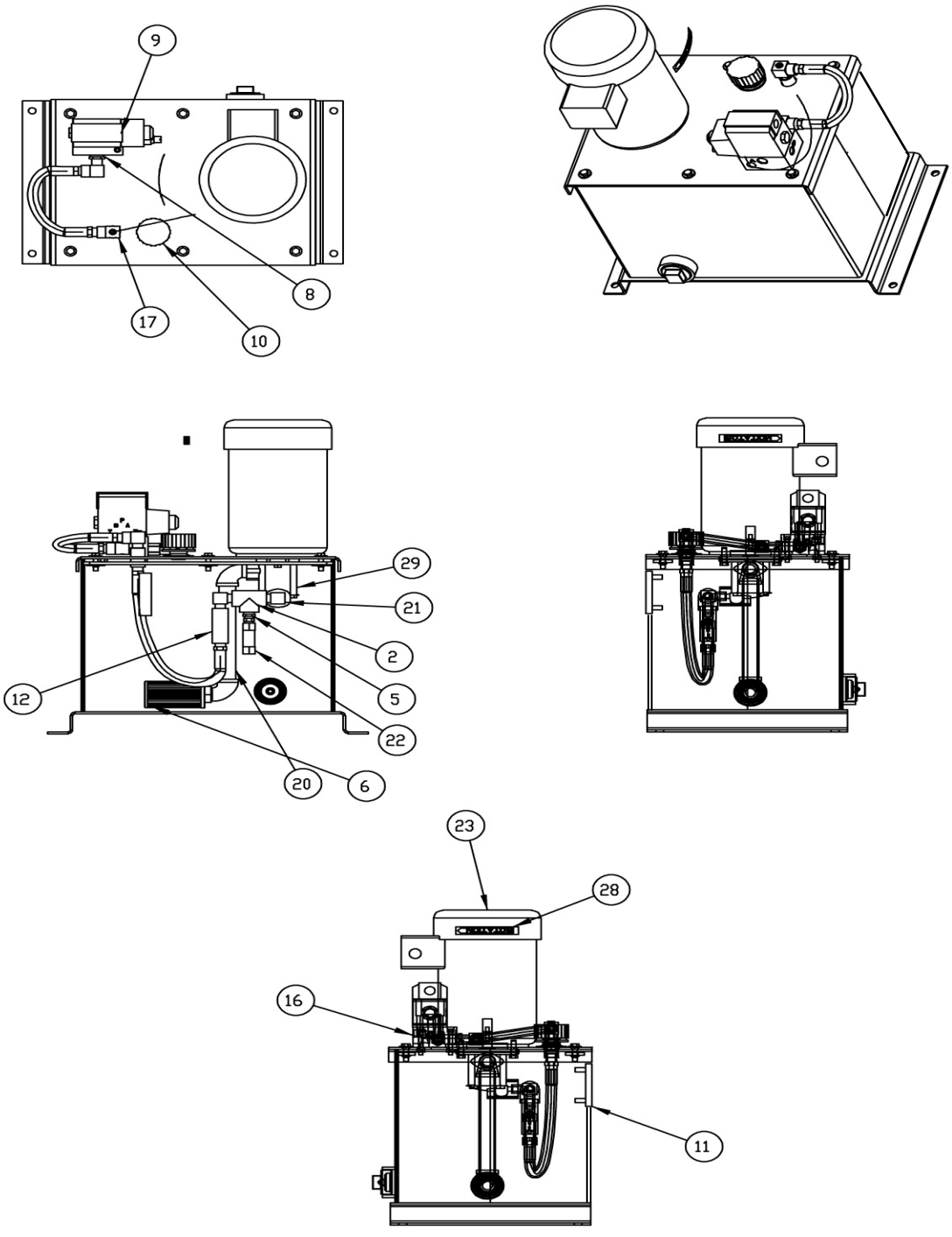
PLC MAINTENANCE - EXTEND/RETRACT TIMER ADJUSTMENT

STEPS	DIRECTIONS
1	Press the Menu Button
2	Press the Up or Down Arrow Button until you get to PARAMETER
3	Press the Menu Button
4	Press the Up or Down Arrow Button until TT1 is flashing (Extend Timer)
5	Press the < Arrow Button
6	Press the Up or Down Arrow Button until the desired time is flashing
7	Press Menu
8	Press Menu with YES blinking
9	Repeat Steps 4-8 with TT2 (Retract Timer)
10	Press the Menu Button to return to normal operation.

TIMER SETTINGS (in seconds)

MODEL NO.	RAM STOP REAR		RAM STOP FORWARD	
	TT1	TT2	TT1	TT2
RJ-88SC	27	17	17	27
RJ-100SC	21	16	16	21
RJ-250SC	19	13	13	19
RJ-250 Ultra	19	13	13	19

POWER UNIT - STANDARD 5 HP (MECO)



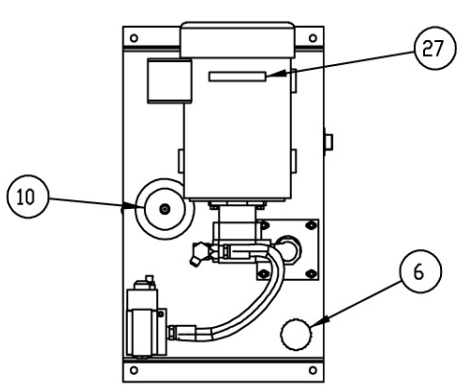
Match the reference numbers to the chart on the next page.

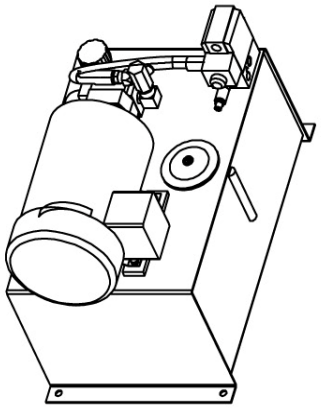
POWER UNIT - STARDARD 5 HP - Parts Lists (MECO)

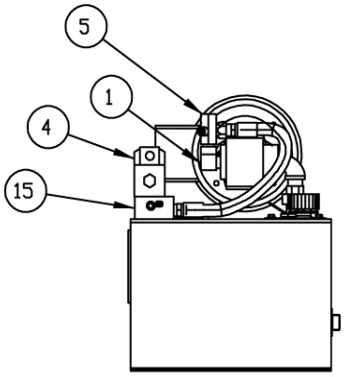
Match reference numbers with the chart on the previous page to identify components.
For replacement part ordering, call our parts department at **1-800-633-8974** or log on to **www.parts1stop.com** to quickly place your order online.

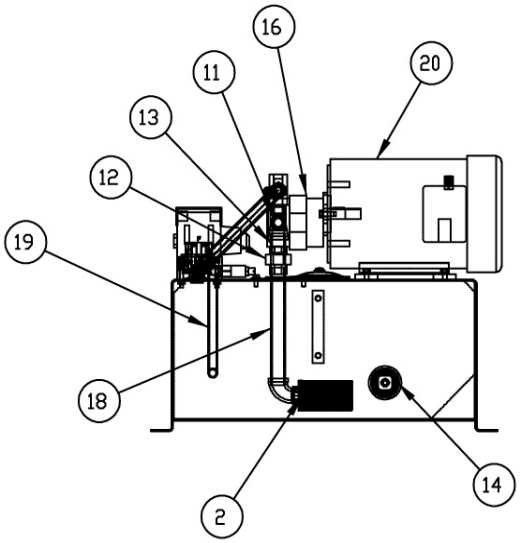
Part #	Ref. #	Description	Quantity
02-0025	1	NIPPLE 3/8 NPT	1
02-0035	2	TEE 1/2 NPTF	1
02-0037	3	COUPLING 1/2 NPT SCH 80	1
02-0039	4	ELL 1/2 NPTM X 1/2 NPTF 90	1
02-0040	5	ADAPTER 3/8 NPTF X 1/2 NPTM	1
02-0050	6	FILTER SUCTION 1 13 GPM 100 ME	1
02-0065	7	PLUG 1/4 NPT SOCKET HEAD	1
02-0132	8	ADAPTER 1/2 NPTF X 3/4 NPTM	1
02-0197	10	BREATHER 3/4 FILLER	1
02-0198	11	GAUGE SIGHT LEVEL 3 INCH	1
02-0204	12	VALVE CHECK 1/2 NPTF	1
02-0214	13	VALVE RELIEF 20 GPM CART PILOT	1
02-0238	14	ELL 1 NPTM X 1 NPTF 90 SCH 40	2
02-0264	16	SUBPLATE 05 1 STN 1/2 NPTF R O	1
02-0265	17	ELL 1/2 NPTM X 1/2 NPTF W/1/4H	1
02-0328	18	HOSE END 1/2 WB X 1/2 SW NPTM	3
02-0329	19	HOSE END 1/2 WB X 1/2 NPTM	1
02-0363	20	PIPE 1 SCH 40 X 10 1/4	1
02-0555	21	ELL 1/2 NPTM X 1/2 NPTM 90	2
02-0859	22	VALVE CHECK 3/8 NPTF AIR BLEED	1
03-4367	23	MOTOR 5HP 1750 208/230/460 CLO	1
05-0012	24	BOLT 3/8-16 X 1 1/4 HHCS PLT	2
05-0105	25	NUT 5/16-18 HEX SELF-LOCKING	2
05-0154	26	BOLT 5/16-18 X 2 1/4 SHCS	2
05-0159	27	WASHER 3/8 LOCK	2
06-0011	28	DECAL MOTOR ROTATION	1
99-7778	29	PUMP 6 GPM VANE	1
02-0330	30	HOSE 1/2 WB 3500PSI	2.25

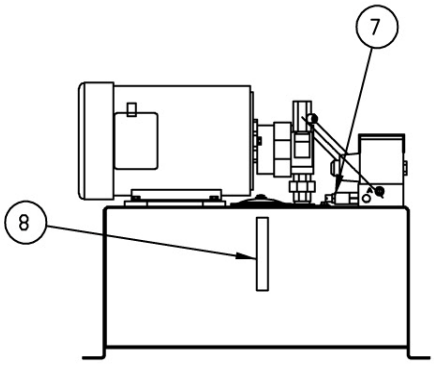
POWER UNIT - DRY 10 HP (MECO)









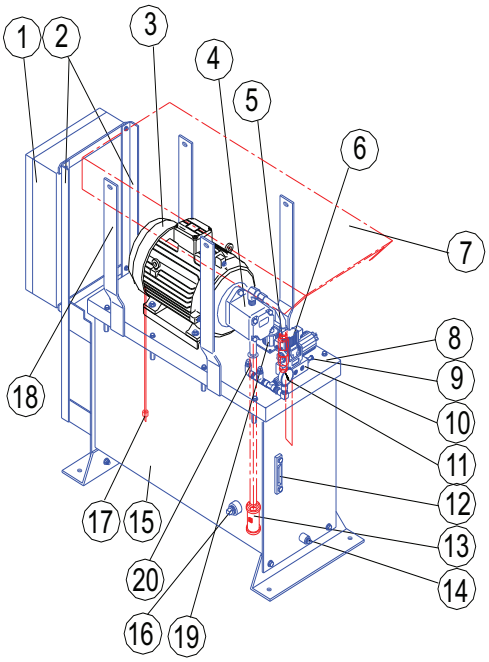


POWER UNIT - DRY 10 HP - Parts List (MECO)

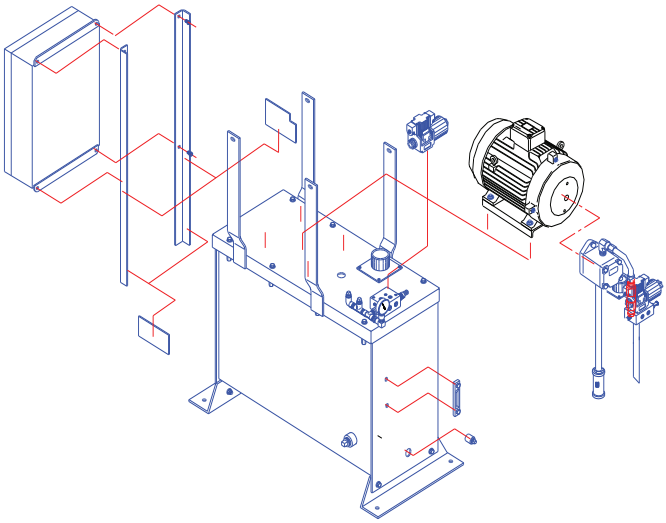
MATCH REFERENCE NUMBERS WITH THE DRAWING ON THE PREVIOUS PAGE. TO ORDER REPLACEMENT PARTS CALL OUR PARTS DEPARTMENT AT 1-800-633-8974 OR ON THE INTERNET AT www.parts1stop.com.

Part #	Ref. #	Description	Qty
02-0044	1	ELL 3/4 NPTM X 3/4 NPTF 90	1
02-0050	2	FILTER SUCTION 1 13 GPM 100 ME	1
02-0157	4	VALVE 4-WAY DIRECTIONAL CONTROL	1
02-0184	5	VALVE CHECK 3/4 NPTM X 3/4 NPT	1
02-0197	6	BREATHER 3/4 FILLER	1
02-0214	7	VALVE RELIEF 20 GPM CART PILOT	1
02-0215	8	GAUGE SIGHT LEVEL 5 INCH	1
02-0219	10	CLEAN OUT COVER 6	1
02-0238	11	ELL 1 NPTM X 1 NPTF 90 SCH 40	2
02-0239	12	UNION 1 NPT	1
02-0240	13	NIPPLE 1 NPT CLOSE	1
02-0264	15	SUBPLATE 05 1 STN 1/2 NPTF R O	1
02-0267	16	PUMP 10 GPM GEAR	1
02-0363	18	PIPE 1 SCH 40 X 10 1/4	1
02-0366	19	PIPE 1/2 SCH 40 X 9 RETURN	1
03-3665	20	MOTOR 10HP 208/230/460V 60HZ 3	1
06-0011	27	DECAL MOTOR ROTATION 3/4 x 4	1

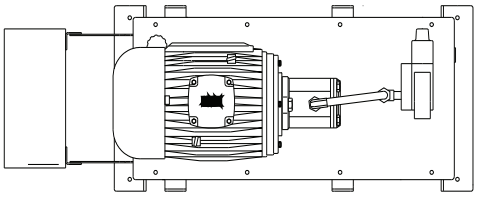
POWER UNIT - DRY 10 HP (NON MECO)



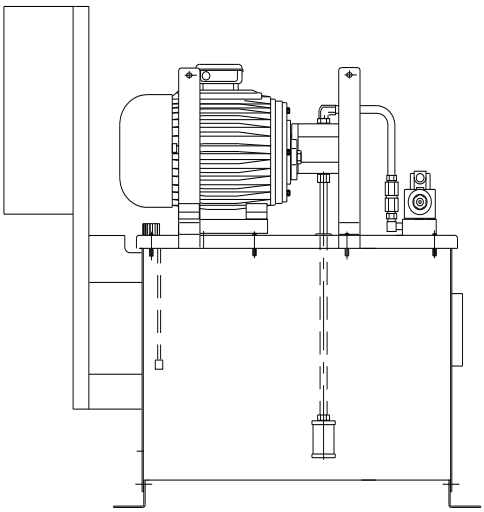
ISOMETRIC VIEW



EXPLODED VIEW



TOP VIEW



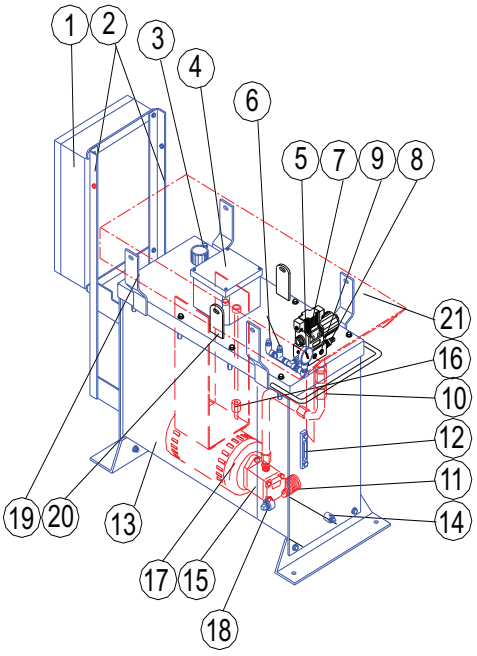
SIDE VIEW

POWER UNIT - DRY 10 HP - Parts List (NON MECO)

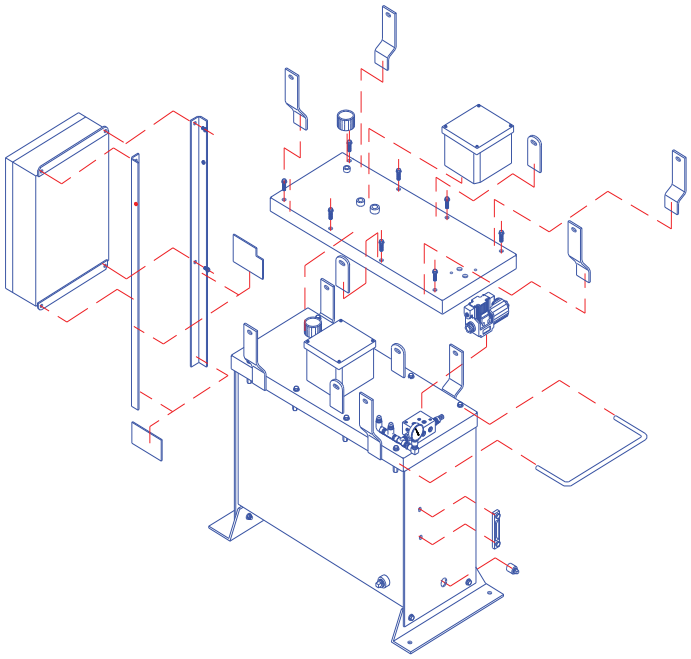
MATCH REFERENCE NUMBERS WITH THE DRAWING ON THE PREVIOUS PAGE. TO ORDER REPLACEMENT PARTS CALL OUR PARTS DEPARTMENT AT 1-800-633-8974 OR ON THE INTERNET AT www.parts1stop.com.

Part #	Ref. #	Description	Qty
03-5480	1	ENCLOSURE 18x12x6 NEMA 12&4	1
32-4982	2	MOUNTING BRACKETS	1
03-5479	3	10HP 3PH 215TCHZ MOTOR	1
02-4988	4	GEAR PUMP 10.5GPM	1
02-5095	5	INLINE CHECK VALVE 1/2”	1
02-0157	6	VALVE 4-WAY 05 O 2-POS	1
32-3164	7	WEATHER COVER	1
02-5106	8	LID	1
02-5086	9	RELIEF VALVE	2
02-5099	10	SUBPLATE	1
02-5094	11	PRESSURE GAUGE 4000PSI	1
02-0215	12	SIGHT GAUGE 5” SG-5-T-G	1
02-4993	13	STRAINER PEC-8-3/4-100	1
02-0179	14	1/2 PLUG	1
02-5100	15	RESERVOIR 29x13x20 DRY COMP	1
03-5476	16	HEATER (208/230/460)	1
03-5477	16	HEATER (575)	1
02-4992	17	OIL LEVEL SENSOR	
32-4983	18	WEATHER COVER BRACKETS (4)	
99-7391	19	3/4” BREATHER	
03-0658	20	SWITCH PRESSURE W/72” STOW CORD	

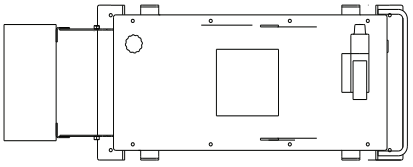
POWER UNIT - SUBMERGED 10 HP (NON MECO)



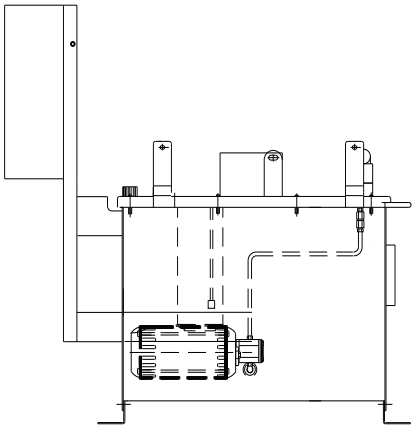
ISOMETRIC VIEW



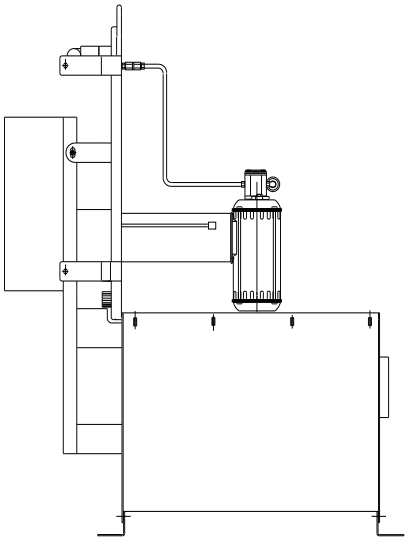
EXPLODED VIEW



TOP VIEW



SIDE VIEW



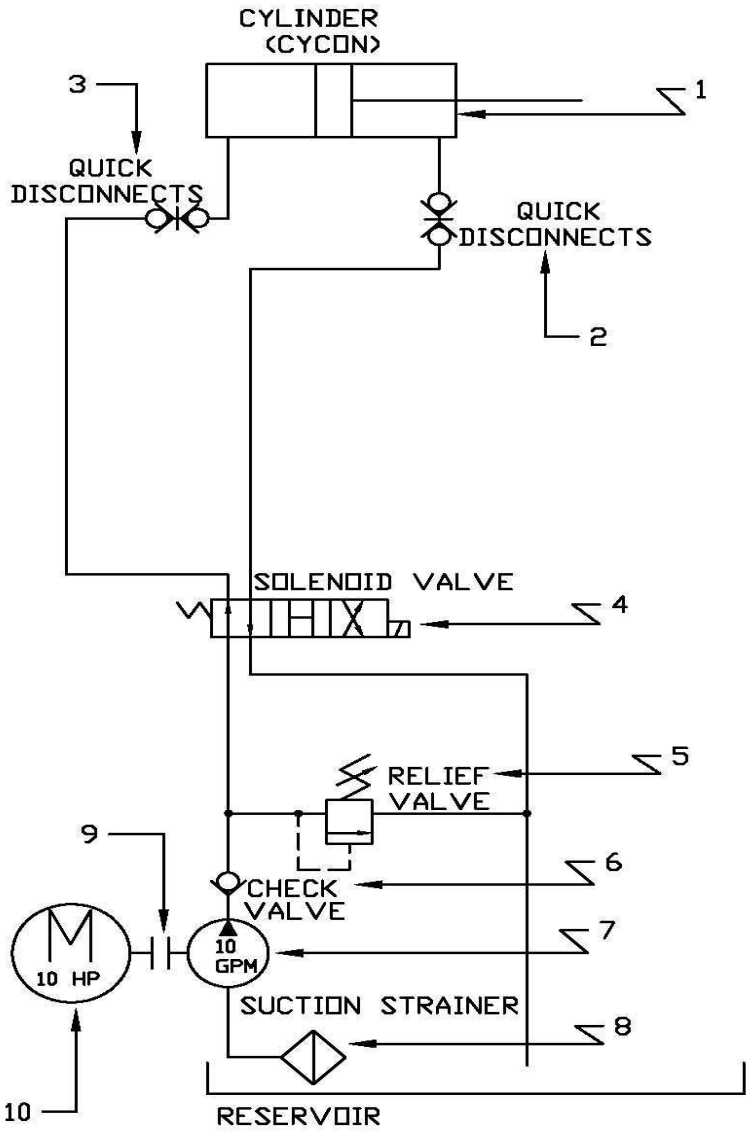
SIDE VIEW - with LID

POWER UNIT - SUBMERGED 10 HP - Parts List (NON MECO)

MATCH REFERENCE NUMBERS WITH THE DRAWING ON THE PREVIOUS PAGE. TO ORDER REPLACEMENT PARTS CALL OUR PARTS DEPARTMENT AT 1-800-633-8974 OR ON THE INTERNET AT www.parts1stop.com.

Part #	Ref. #	Description
03-5480	1	ENCLOSURE 18x12x6 NEMA 12&4
32-4982	2	MOUNTING BRACKETS
99-7391	3	3/4” BREATHER
03-5481	4	JUNCTION PVC BOX 6x6x4
02-5094	5	PRESSURE GAUGE 4000PSI
03-0658	6	SWITCH PRESSURE W/72” STOW CORD
02-0157	7	VALVE 4-WAY DIRECTIONAL CONTROL
02-5086	8	RELIEF VALVE
02-4991	9	DO2 SUBM.SUBPLATE ALL SAE
02-5095	10	INLINE CHECK VALVE 1/2”
02-4993	11	STRAINER PEC-8-3/4-100
02-0215	12	SIGHT GAUGE 5”
02-5100	13	RESERVOIR 29 x 13 x 20 20GAL
02-0179	14	1/2 PLUG
02-4988	15	GEAR PUMP 10.5GPM
02-4992	16	OIL LEVEL SENSOR
03-5374	17	MOTOR 10HP/3PH SUBMERSIBLE 208/230/460 FR56
03-5476	18	HEATER (208/230/460) OPTIONAL 1-1/4” NPT w/PLUG
03-5477	18	HEATER (575) OPTIONAL 1-1/4” NPT w/PLUG
32-4983	19	WEATHER COVER BRACKET (4)
32-4984	20	LID HOLD UP TAB (2)
32-3164	21	WEATHER COVER

HYDRAULIC SCHEMATIC - TYPICAL (cycon)



1. Cylinder
2. Quick Disconnect (Female)
3. Quick Disconnect (Male)
4. Valve, 4-Way
5. Relief Valve
6. Check Valve
7. Pump
8. Suction Filter
9. Hub Coupling (Not on Closed-Coupled Units)
10. Motor

* SINGLE CYCLINDER UNIT SHOWN. FOR DUAL CYLINDER UNITS, CONNECT IDENTICAL CYLINDER IN PARALLEL.

TROUBLESHOOTING CHART

PROBLEM	CAUSE	SOLUTION
UNIT WILL NOT START	(1) No electrical power to unit	(1A) Turn on main disconnect (1B) Replace fuses or reset breakers
	(2) No electrical power to control circuit	(2A) Check primary and secondary sides of transformer (2B) Check for correct voltage. Check control fuses. (2C) Check stop button (2D) Check start button to be sure contact closes when depressed
UNIT WILL NOT CONTINUE RUNNING WHEN START BUTTON IS RELEASED	(3) No electrical power to motor	(3A) Check heater resets
	(1) Motor starter is in-operative	(1A) Check motor starter coil & wiring
	(2) Motor starter auxiliary contacts are inoperative	(2A) Check motor starter contacts and wiring
	(3) Reverse Button is inoperative	(3A) Check reverse button to be sure contacts are closed (3B) Check wiring
	(4) Secondary contact on start button is inoperative	(4A) Check contact, wired black and orange, to be sure it is operating properly (4B) Check wiring
MOTOR RUNS BUT RAM DOES NOT MOVE NORMALLY	(1) Insufficient oil in reservoir	(1A) Fill reservoir with oil
	(2) Low relief pressure	(2A) Check relief pressure (refer to PROCEDURES-HYDRAULIC PRESSURE CHECK and PRESSURE SETTINGS for correct pressure. (2B) Clean orifice in relief valve and reset pressure (2C) Check 'O" rings on relief valve for damage or leakage
	(3) Oil leakage in cylinder	(3A) Check cylinder for bypassing (3B) Replace seal kit, inspect rod and cylinder tube for scoring or nicks (3C) Replace cylinder
	(4) Defective pump	(4A) Replace pump
	(5) Oil leakage from hose fittings	(5A) Tighten hose fittings
	(6) Low voltage	(6A) Check voltage
	(7) Pump may be driven in the wrong direction of rotation	(7A) Stop immediately to prevent seizure. Check direction of drive rotation (proper rotation direction is indicated by arrow on motor)
	(8) Shaft broken, or shaft key sheared	(8A) Visually inspect motor and pump Shaft and hub couplings for damage. Replace if necessary.
	(9) Intake pipe from reservoir blocked, or oil viscosity too heavy to prime	(9A) Drain system. Add clean fluid of proper viscosity and specifications. Filter as recommended. Check system filter for cleanliness.
	(10) Intake air leaks (foam in oil or sounds like gravel in pump)	(10A) Check intake connections. Tighten securely
	(11) Units shift slowly	(11A) Flow control valve (restrictor) clogged, remove and clean orifice.
	(12) Valve response sluggish	(12A) Contaminated oil-drain and flush system. (12B) Inadequate voltage, check voltage (12C) Dissamble valve and clean
UNIT WILL NOT REVERSE	(1) Solenoid valve is in-operative	(1A) Check coil in solenoid valve
	(2) Reverse button in-operative	(2B) Check reverse button contacts

TROUBLESHOOTING CHART

PROBLEM	CAUSE	SOLUTION
PUMP MAKES NOISE-SOUNDS LIKE GRAVEL	(1) Partly clogged intake strainer or restricted intake pipe	(1A) Pump must receive intake fluid freely or cavitation results. Drain system, clean intake pipe and clean or replace strainer
	(2) Defective bearing	(2A) Replace pump
	(3) Air leak at pump intake pipe joints	(3A) Tighten joints as required.
PUMP SHAFT SEAL LEAKING	(1) Seal worn or damaged	(1A) Replace seals or pump.
EXCESSIVE HEAT	(1) Continuous running	(1A) When over 140 degrees F or hot in comparison with circuit lines, pump should be shut down immediately. Before restarting, insure that fluid cooling capacity is adequate to remove system generated heat.
		(1B) Install oil cooler (air or water type)
		(1C) Install oil temperature shut down switch
		(1D) Check to be sure CYCON Power Pack has not been exchanged for Pressure Shifting Power Pack.
	(2) Undersized hydraulic lines	(2A) Replace with larger hydraulic lines
	(3) High ambient temp in relation to oil temp.	(3A) Use lower viscosity oil
	(4) Excessive system leakage	(4A) Check system for bypassing or leaks
RAPID WEAR	(1) Abrasive matter in the hydraulic oil being circulated through pump	(1A) Install adequate filter or clean.
		(1B) Replace oil more often and clean tank
	(2) Viscosity of oil too low at working conditions	(2A) Replace oil with factory recommended.
	(3) Pressure too high	(3A) Reduce pump pressures to factory specifications.
	(4) Air recirculation causing pump noise	(4A) Tighten all fittings.
ERRATIC OPERATION	(1) Valve sticking or binding	(1A) Disassemble & clean as necessary
	(2) Viscosity of oil too high	(2A) Change oil to factory recommended viscosity
	(3) Air in system	(3A) Check for leaks, tighten fittings
	(4) Low oil	(4A) Fill reservoir with oil
	(5) Low voltage	(5A) Check primary & secondary sides of transformer for correct voltage.
OVERLOADS TRIP FREQUENTLY		(1A) Check for correct voltage (incoming power.)
		(1B) Check fuses or breakers at disconnect
		(1C) Check heater elements to be sure they are tight
		(1D) Check wiring from starter to motor to make sure all connections are tight
		(1E)Check motor leads to be sure all connections are tight surges or voltage

NOTE: Excessive overload tripping and/or motor or coil failures may occur if voltage surges or voltage drops are frequent in your area. This circumstance can be remedied by the installation of phrase protectors which drop power to the motor if surges are present.

3 INSTALLATION

CONCRETE PAD REQUIREMENTS

CAUTION!

REVIEW THIS MANUAL BEFORE MAKING THE INSTALLATION. STUDY THE JOBSITE AND INSTALLATION REQUIREMENTS CAREFULLY TO BE CERTAIN ALL NECESSARY SAFEGUARDS AND OR SAFETY DEVICES ARE PROVIDED TO PROTECT ALL PERSONNEL AND EQUIPMENT DURING THE INSTALLATION AND AS A COMPLETED SYSTEM. SPECIAL ATTENTION IS DIRECTED TO THE MOST CURRENT EXTRACT FROM AMERICAN NATIONAL STANDARDS Institute Z245.2.

These operating instructions are not intended as a substitute for training and experience in proper use and safety procedures in operating this equipment.

Marathon Equipment Co. does not assume responsibility for the installation procedures of this equipment. Conformance to applicable local, state, and federal laws concerning installation rests with the customer.

CONCRETE PAD

1. Preferred dimensions of the concrete pad are 10'0" wide and a length of 5'0" greater than the length of the compactor/container. It should be level and of minimum 3000 PSI concrete steel reinforced, 6" thick. It is preferred that the concrete pad be flush with the surrounding ground level. **NOTE:** Units with four ground rollers must be installed on a level pad.
2. To provide accessibility, concrete pad should be positioned to allow 2'0" between machine and building wall if installed parallel with building. Allow a minimum of 45' of clear space from end of pad for container handling vehicle.

Note: The clearances given are minimums. Your installation may require greater clearances depending on the site and the hauling equipment that will be used.

CONTAINER GUIDES

If container guides (optional) are used with the self-contained units, the guides should be anchored to the concrete pad using 3/4" X 6" anchor bolts. These bolts should be concrete anchors or expansion type anchor bolts. To allow for construction variations, it is best if these holes are drilled in the concrete after pre-locating the container guides in their desired location. Drill holes and place anchor bolts in each location provided on the guides. When the guides have been placed in position, and the anchor bolts have set, tighten all nuts securely.

STEEL INSTALLATION PROCEDURES

DOCK INSTALLATION

If the appropriate accessories are ordered from Marathon Equipment Co., the compactor/ container will be furnished with either a four-sided hopper or a three-sided hopper with a hinged gate. THESE ACCESSORIES SHOULD NOT BE ALTERED AS THEY ARE MANUFACTURED IN ACCORDANCE WITH THOSE STANDARDS WHICH PREVAIL AT THE TIME OF MANUFACTURE.

If the compactor/container cannot be directly abutted to the dock or if there is any difference in height between the dock and the compactor/container, an appropriately sturdy transition section should be provided by the customer and securely affixed to the dock. Along with the transition section, a compactor/container guidance/stop mechanism should be installed to assure that the unit does not bottom out against the transition section or dock during dock placement (See ANSI Z245.2 Safety Standards). Optional container guides with stops are available from Marathon and are recommended for proper dock placement of the compactor/ container.

CHUTE-FED INSTALLATION

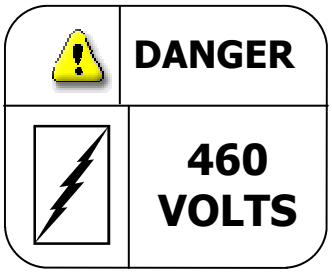
Compactors installed in this arrangement are normally fed "through-the-wall". The lower edge of the access hole in the wall should be a MINIMUM of 42" (and, if possible, not more than 58") from the inside floor level. A security door (in accordance with local code) should be installed in the wall opening. In the absence of a local code, this door should be constructed of 3/16" thick steel or of steel hollow core design and be lockable from the inside of the building.

DECALS

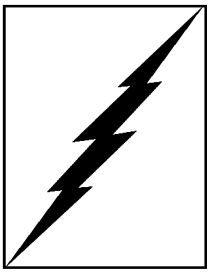
Be certain that the appropriate decals are in their proper locations at all times on the machine. For decal locations, see “DECALS” and “DECAL PLACEMENT” in the Operation section of this manual.

NOTE: Installation is not complete until all decals are in place.

ELECTRICAL & HYDRAULIC INSTALLATION



The motor control panel contains high voltage components. Only authorized service personnel should be allowed inside. See Lock-Out & Tag-Out instructions in the maintenance section.



A lockable fused disconnect switch (customer furnished) must be installed and be within sight of the compactor motor control panel location, not to exceed 50'0" from the compactor. This fused disconnect switch should be sized in accordance with the compactor (see Fuse and Circuit Breaker Chart).

DANGER: All equipment must be grounded per National Electric Code.

GROUNDING INSTRUCTIONS

This appliance must be connected to a grounded, metal, permanent wiring system; or an equipment grounding conductor must be run with the circuit conductors and connected to the equipment grounding terminal or lead on the compactor.

If there is any doubt whether the appliance is properly grounded, a qualified electrician should be consulted.

REMOTE POWER PACK INSTALLATION

1. The remote power pack should be installed and anchored as required by the customer. If the operator station is mounted in the face of the motor control panel, be certain these controls are located as to be in a convenient, but not hazardous, location to the customer.

   CAUTION: Operator Station must be located so that the Emergency Stop Button is readily accessible to the operator and within three (3) feet of the charging chamber access door. If installation requires the operator station to be located in a more remote area, a second Emergency Stop Button should be added and installed in the manner described above.

2. For a through-the-wall power pack installation, see the diagram THROUGH-THEWALL POWER UNIT INSTALLATION in this section. Special care should be taken to protect the hoses from abrasive objects.

3. Connect the hydraulic hoses to the power pack, exercising care to follow the port decals (A or B) on the packer and the power pack. In the event the decals have been obliterated, the hose leading from the rear of the cylinder should be installed in the side port of the block to which solenoid valve is bolted (A Port). The hose leading from rod end of the cylinder should be connected to the end of the block to which the solenoid valve is bolted (B Port). Refer to Power Unit diagrams in the Maintenance section of this manual.

ELECTRICAL & HYDRAULIC INSTALLATION

PUSHBUTTON CONTROL PANEL

If a remote operator station is furnished, it will be factory wired using Sealtite. If it is necessary to disconnect it from the wires (to install the operator station inside a building), exercise care that these wires are reconnected as originally furnished. (Check local codes to be certain that sealtite is acceptable.)

CAUTION: Operator Station must be located so that the Emergency Stop Button is readily accessible to the operator and within three (3) feet of the charging chamber access door. If installation requires this operator station to be located in a more remote area, a second Emergency Stop Button should be added and installed in the manner described above.

ELECTRICAL CONNECTIONS

Run power lines, between fused disconnect switch (customer furnished) and compactor's motor control panel, in accordance with local electrical codes, using knock-outs in bottom of motor control panel. See Fuse & Circuit Breaker Chart for Motors and Wire Size Chart, in the Maintenance Section, to determine the proper service disconnect amperage rating and the proper wire size.

NOTE: High legs should be installed to L3 on motor starter.

Check voltage at fused disconnect switch to be certain it is the same as is shown on compactor or remote power pack. If voltage is correct, put fused disconnect switch in "ON" position.

START-UP INSTRUCTIONS

1. With the ram fully retracted, check to be sure the oil reservoir is full to the 3/4 level on the sight gauge (Refer to the maintenance chart for hydraulic oil recommendations). The hydraulic system pressure has been factory set and the entire unit has been operated prior to shipment.
2. **CAUTION:** MAKE SURE PERSONS AND MATERIAL ARE CLEAR OF CHARGE BOX AREA.
3. Depress the start button and check the pump shaft for proper rotation.

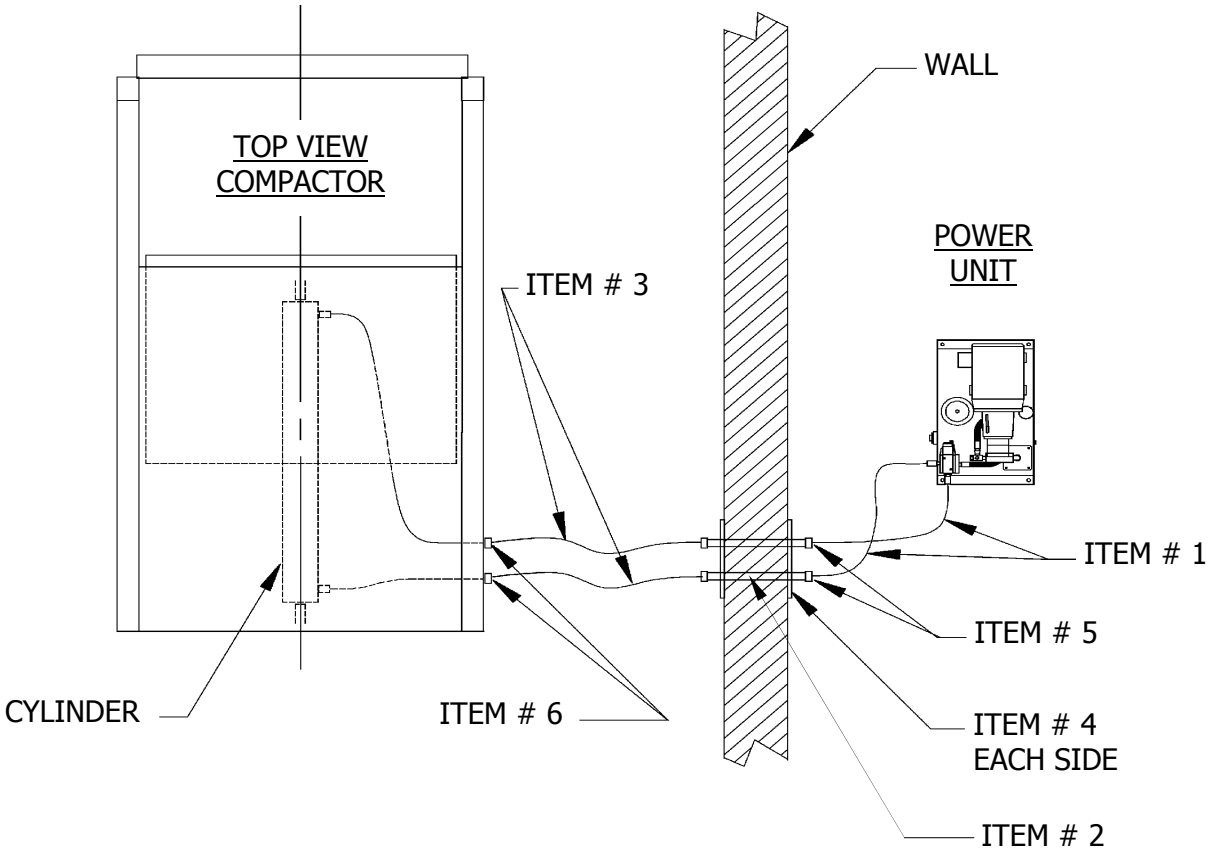
   CAUTION: If the pump rotates backward, stop immediately. The pump will be damaged if it is operated in reverse even for short periods. Reversing any two incoming power lines will change the motor/pump rotation.
4. **Make sure that the operators are trained in the proper use of this equipment.**

THROUGH-THE-WALL POWER UNIT INSTALLATION

If the remote power unit is to be mounted through-the-wall, the following list of material and diagram is the suggested method.

List of Material		
Item #	Quantity	Description
1	2	Hydraulic Hose, Hi-Pressure (sized to power unit*), 36" long
2	2	Pipe, Schedule 80 (sized to power unit*), 36" long
3	2	Hydraulic Hose, Hi-Pressure (sized to power unit*), 48" long
4	2	Steel plate with holes for Item # 2, 3/16" x 8" x 12"
5	4	Coupling, Female (sized to fit hose & pipe*)
6	3	Coupling, Male x Female Swivel

* 1/2" for hose lengths of 20'-0" or less. Consult factor for longer lengths.



4 HAULER INFORMATION

HAULER INSTRUCTIONS - GENERAL

Before hauling to the landfill:

1. Disconnect all hoses and electrical connections (if applicable) between the power unit and the compactor. Make sure they are placed in an area where they will not get damaged.
2. Close and secure any hopper doors or gates.
3. Make sure that the container door safety chain is secured in the keyhole on the latch side of the container floor.
4. If the unit is a Streamline model (SL), disconnect any drain hose(s) connected to the unit and plug all ports.
5. **Make sure that the hoist lifting the unit is compatible with the understructure on the unit.**

   NOTE: Hold downs should be used to secure the front and rear of the of the container understructure to the hoist.

At the landfill:

SEE THE NEXT PAGE FOR DOOR AND LATCH OPERATION INSTRUCTIONS.

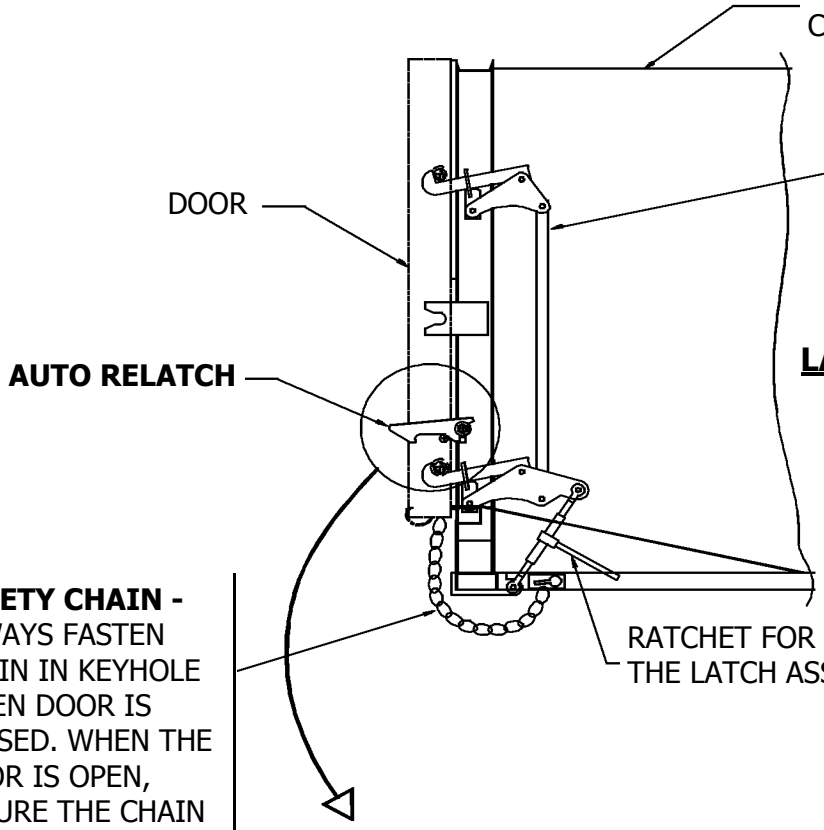
1. To prevent leakage, the door seal and mating surface should be wiped clean and inspected after the unit has been emptied. When cleaning the seal on units with the hydraulic tailgate option, inspect for damage and replace if necessary.

WARNING: NEVER place any part of your body between the tailgate and the container. Use a mop or similar cleaning device with a long handle to clean the seal. Close inspection of the seal should be done only after the container has been lowered to a level position and the raised tailgate has been supported with a crane, forklift, or other positive maintenance prop.

After returning from the landfill:

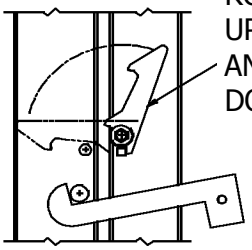
1. After setting the unit down, reconnect all hoses and electrical connections (if applicable) to the compactor. Make sure they are not laying across sharp corners or any abrasive surface.
2. Close and secure any hopper doors or gates.
3. Make sure that the container door safety chain is secured in the keyhole on the latch side of the container floor.
4. If the unit is a Streamline model (SL), connect any drain hose(s) to the unit.

DOOR/LATCH OPERATION



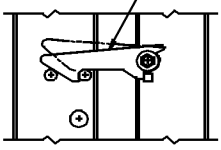
LATCH SIDE VIEW OF CONTAINER

SAFETY CHAIN - ALWAYS FASTEN CHAIN IN KEYHOLE WHEN DOOR IS CLOSED. WHEN THE DOOR IS OPEN, SECURE THE CHAIN IN THE KEYHOLE ON THE HINGE SIDE OF THE CONTAINER FLOOR.



AUTO RELATCH IN POSITION TO OPEN DOOR

ROTATE THE AUTO RELATCH UP TO THE POSITION SHOWN AND OPEN THE LATCH AND DOOR.



AUTO RELATCH IN POSITION TO GRAB AND HOLD DOOR DURING DOOR CLOSING

WHEN CLOSING THE DOOR, ROTATE THE AUTO RELATCH DOWN TO THE POSITION SHOWN AND PUSH THE DOOR SHUT UNTIL THE AUTO RELATCH GRABS THE PIN ON THE DOOR. AFTER THE DOOR IS SECURED BY THE AUTO RELATCH, THE LATCH ASSEMBLY IS CLOSED USING THE RATCHET. CONNECT THE SAFETY CHAIN ON THE DOOR TO THE KEYHOLE ON THE SIDE OF THE CONTAINER FLOOR.

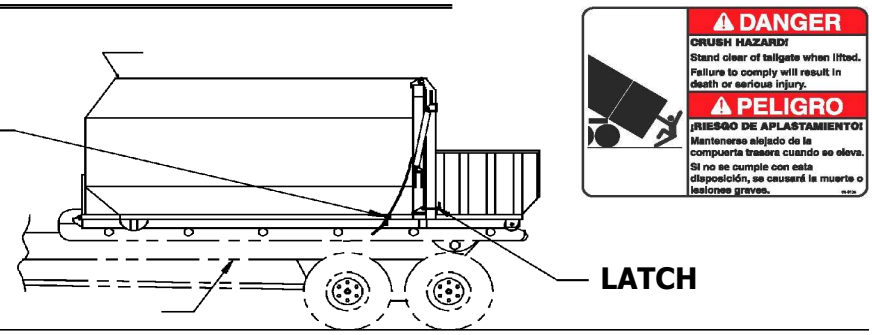
HYDRAULIC TAILGATE OPERATION (FOR OPTIONAL HT UNITS)

The truck hoist must have a hydraulic selector valve with 1500 psi, min. to operate the hydraulic tailgate. The hydraulic tailgate is supplied with one 1/2" NPTF male quick disconnect mounted on the drivers side of the unit. A 1/2" female quick disconnect is supplied for use on the truck hoist valve plumbing.

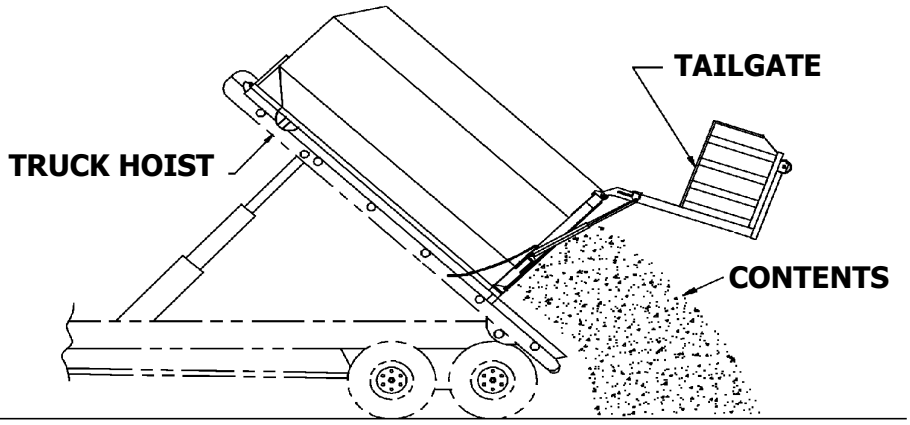
CAUTION

* STAND CLEAR OF TAILGATE WHEN LIFTED.
* TRUCK MUST BE ON FIRM, LEVEL SURFACE BEFORE LIFTING TAILGATE.
* FRONT AND REAR HOLDDOWNS MUST BE ENGAGED.
* TILT HOIST BEFORE LIFTING TAILGATE.

1. **ATTACH HYDRAULIC CONNECTION.**
2. **DISENGAGE LATCH. (EACH SIDE)**


DANGER
CRUSH HAZARD!
Stand clear of tailgate when lifted.
Failure to comply will result in death or serious injury.
PELIGRO
¡RIESGO DE APLASTAMIENTO!
Manténgase alejado de la compuerta trasera cuando se eleva.
Si no se cumple con esta disposición, se causará la muerte o lesiones graves.
LATCH

3. **RAISE HOIST**
4. **LIFT TAILGATE**
5. **EMPTY CONTENTS**



6. **CLEAN SEAL AS DESCRIBED IN THE "HAULER INSTRUCTIONS - GENERAL" IN THIS SECTION OF THE MANUAL. NOTE WARNINGS.**
7. **LOWER TAILGATE AS LOW AS POSSIBLE.**
8. **LOWER HOIST.**
9. **LOWER TAILGATE COMPLETELY.**
10. **ENGAGE AND TIGHTEN LATCHES.**
11. **REMOVE HYDRAULIC CONNECTION.**

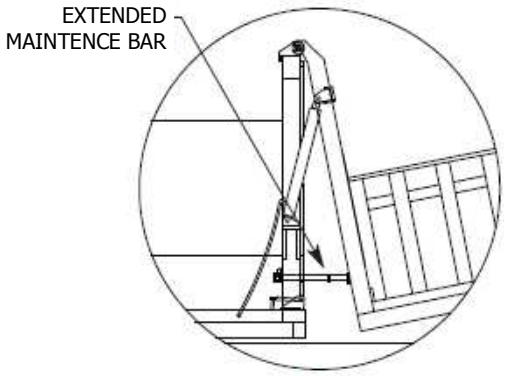
HYDRAULIC TAILGATE OPERATION (FOR OPTIONAL HT UNITS)

WARNING:

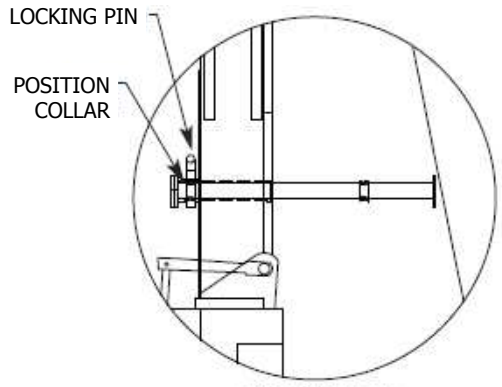
NEVER PLACE ANY PART OF YOUR BODY BETWEEN THE TAILGATE AND CONTINER.

INSTRUCTIONS FOR USING MAINTENANCE BAR.

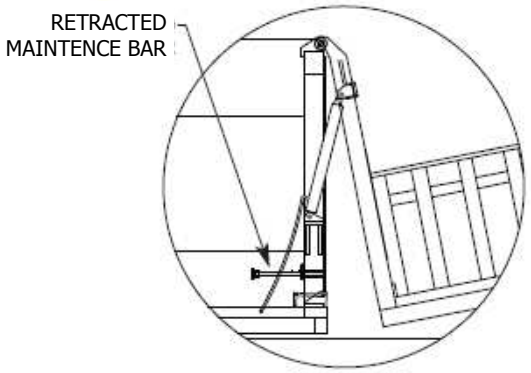
1. Lower tailgate approximately 24" between container bottom and compactor tailgate.
2 Remove locking pin from maintenance bar and slide bar toward compactor.
3. Align holes in the position collar and bar and insert pin.
4. Use a mop or similar cleaning device with a long handle to clean the seal.
5. Raise tailgate to relieve pressure on maintenance bar, remove pin, return bar to retracted position and insert pin through collar and bar.



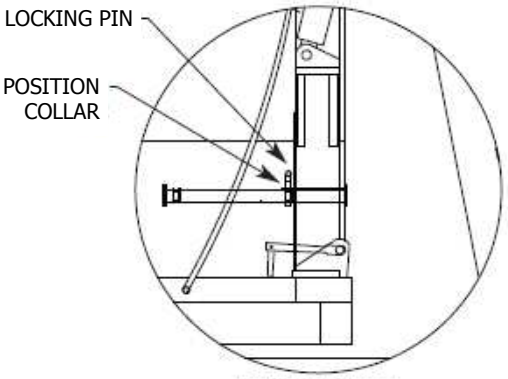
DRAWING A



EXPLODED VIEW
DRAWING A



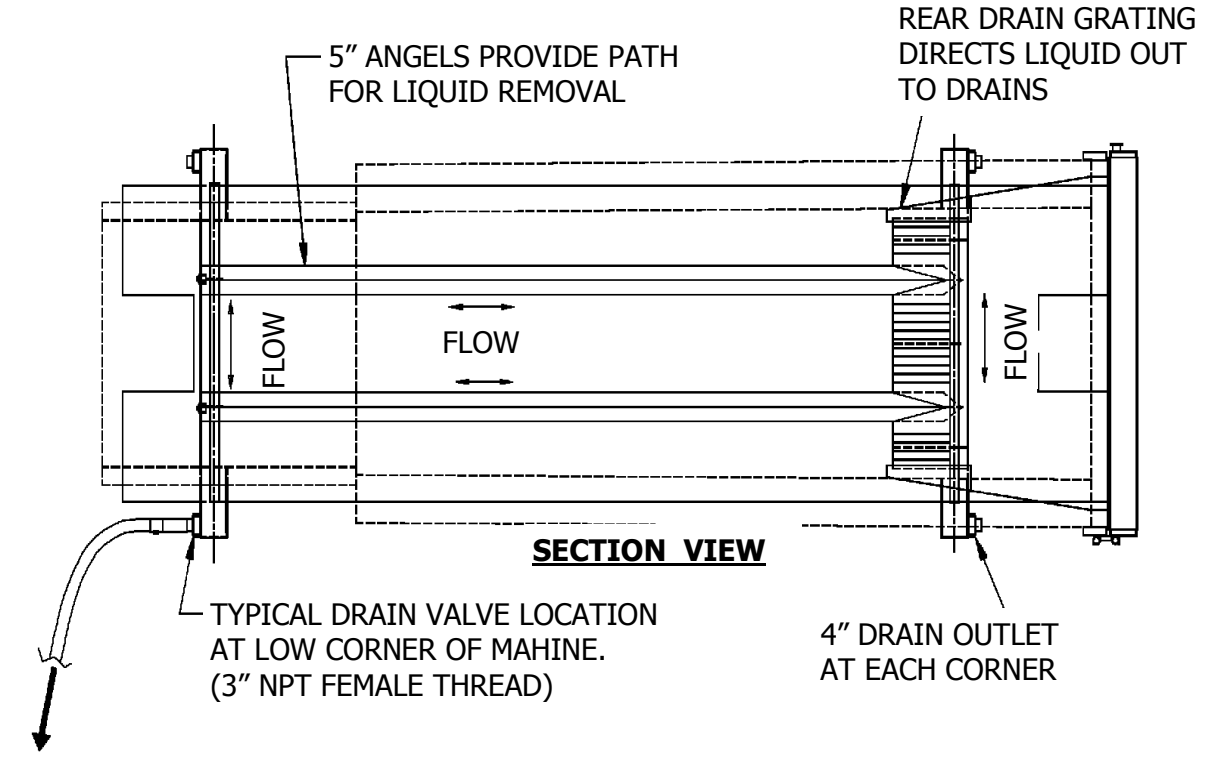
DRAWING B

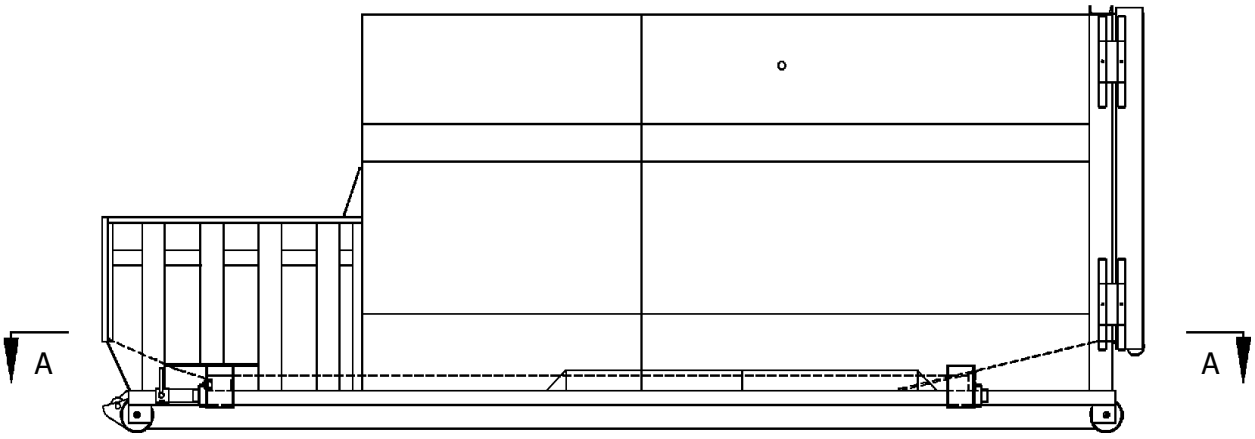


EXPLODED VIEW
DRAWING B

LIQUID REMOVAL - (FOR OPTIONAL SL UNITS

The RamJet Self-Contained Streamline compactor/containers are designed with an internal drain system for liquid removal, ported to each corner of the machine. The unit comes standard with one ball valve. This valve can be moved to any of the four drain outlets on the machine. The valve should be located at the lowest outlet on the machine for proper drainage. The customer can attach a drain hose with a 3" NPT male fitting to the drain valve.





SIDE VIEW

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